US011903495B1

(12) **United States Patent**
Bickel et al.

(10) **Patent No.: US 11,903,495 B1**
(45) **Date of Patent: Feb. 20, 2024**

(54) **TRAVEL NURSERY APPARATUS**

(71) Applicant: **Regalo International, LLC**, Burnsville, MN (US)

(72) Inventors: **Shannon R. Bickel**, Lakeville, MN (US); **Heidi C. Leighton**, Shorewood, MN (US); **Kasey L. Pipo**, Elko New Market, MN (US)

(73) Assignee: **Regalo International, LLC**, Burnsville, MN (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 137 days.

(21) Appl. No.: **17/229,821**

(22) Filed: **Apr. 13, 2021**

Related U.S. Application Data

(60) Provisional application No. 63/012,749, filed on Apr. 20, 2020.

(51) **Int. Cl.**
A47D 9/00 (2006.01)
A47D 13/06 (2006.01)

(52) **U.S. Cl.**
CPC ***A47D 9/005*** (2013.01); ***A47D 13/061*** (2013.01)

(58) **Field of Classification Search**
CPC . A47D 9/00; A47D 9/005; A47D 7/00; A47D 7/002; A47D 13/061
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

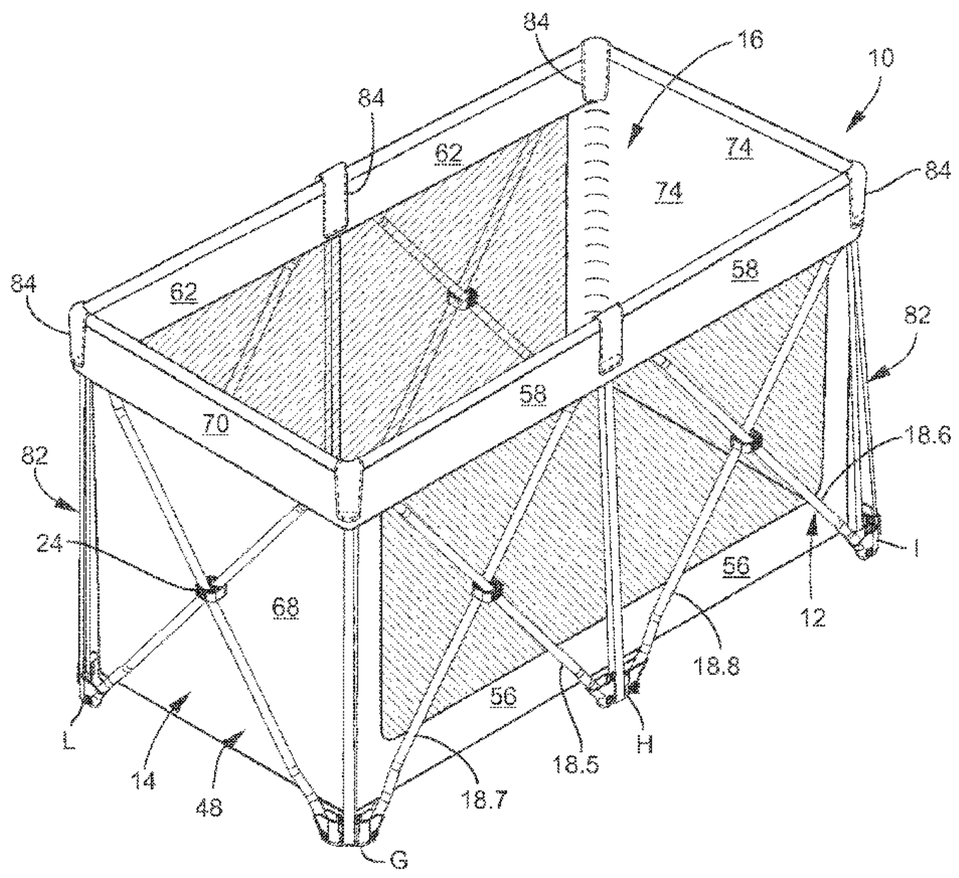
1,950,603 A * 3/1934 Fischer A47D 13/065 256/25
3,838,883 A * 10/1974 Machen A47D 7/002 297/16.2
4,651,367 A * 3/1987 Osher A47D 7/002 5/99.1
4,739,527 A * 4/1988 Kohus A47D 13/066 5/99.1
5,115,524 A * 5/1992 Antosko A47D 9/005 229/117.17
6,134,727 A * 10/2000 Hwang A47C 17/64 5/112
6,421,850 B1 * 7/2002 Welsh, Jr. A47D 13/063 5/98.1
6,438,773 B1 * 8/2002 Hsia A47D 13/063 5/98.1
6,588,033 B1 * 7/2003 Welsh, Jr. A47D 7/002 5/98.1
6,925,664 B1 * 8/2005 Twigg A01K 1/034 5/112
7,114,205 B2 * 10/2006 Choi A47C 27/081 5/115
7,617,550 B2 * 11/2009 Gehr A47D 13/063 5/99.1
7,712,163 B2 * 5/2010 Flannery A47C 17/74 5/115
8,162,349 B1 * 4/2012 Roselle B62B 5/085 280/654
9,144,325 B1 * 9/2015 Sousa A47D 7/002
(Continued)

Primary Examiner — Justin C Mikowski
Assistant Examiner — George Sun

(57) **ABSTRACT**

A travel nursery apparatus having a scissoring frame defining four faces of a parallelepiped. A flexible receptacle is engaged to the scissoring frame where the flexible receptacle defines five faces of a parallelepiped. An infant bassinet may be engaged to the scissoring frame and depend into the flexible receptacle, with a floor of the infant bassinet being spaced from a floor of the flexible receptacle.

15 Claims, 21 Drawing Sheets



(56) **References Cited**

U.S. PATENT DOCUMENTS

10,194,755	B1 *	2/2019	Flannery	A47D 13/063
10,448,752	B1 *	10/2019	Flannery	A47D 13/063
10,674,835	B1	6/2020	Flannery et al.	
10,871,007	B1 *	12/2020	Tsai	E04H 15/50
11,266,253	B1 *	3/2022	Flannery	A47D 9/00
2003/0024660	A1 *	2/2003	Homeyer	A47D 7/002 160/377
2007/0289060	A1 *	12/2007	Berkey	A47D 9/016 5/98.1
2008/0034498	A1 *	2/2008	Chen	A47D 13/063 5/99.1
2010/0229301	A1 *	9/2010	Arnold, IV	A47D 11/007 5/93.2
2011/0283457	A1 *	11/2011	Son	A47D 9/016 5/690
2012/0311782	A1 *	12/2012	Tricault	A47D 7/002 5/99.1
2014/0208505	A1 *	7/2014	Burkholder	A47D 7/002 5/99.1
2016/0000234	A1 *	1/2016	Whitman	A47D 13/061 5/99.1
2016/0309913	A1 *	10/2016	Peterson	A47D 15/003
2016/0309914	A1 *	10/2016	Burns	A47D 9/005
2018/0192783	A1 *	7/2018	Henry	A47D 7/002
2019/0335702	A1 *	11/2019	Thrift	E04H 15/48
2020/0352352	A1 *	11/2020	Fusco	A47D 13/061
2021/0137280	A1 *	5/2021	Villano	A47D 15/008

* cited by examiner

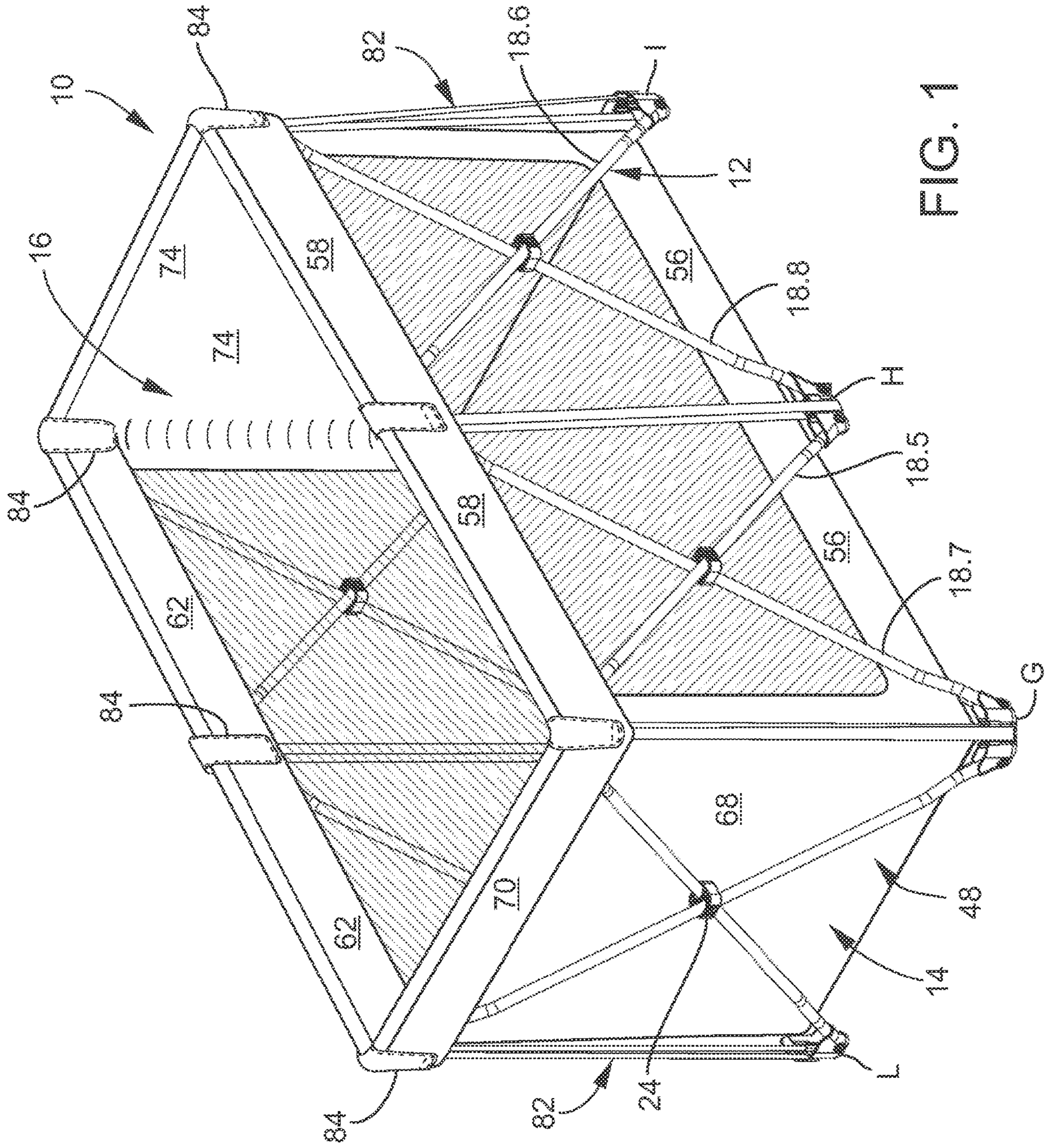

10
84
82
18.6
1
12
16
74
58
56
18.8
H
18.5
84
74
58
56
18.7
G
62
84
68
70
62
48
14
L
84
82
24

FIG. 1

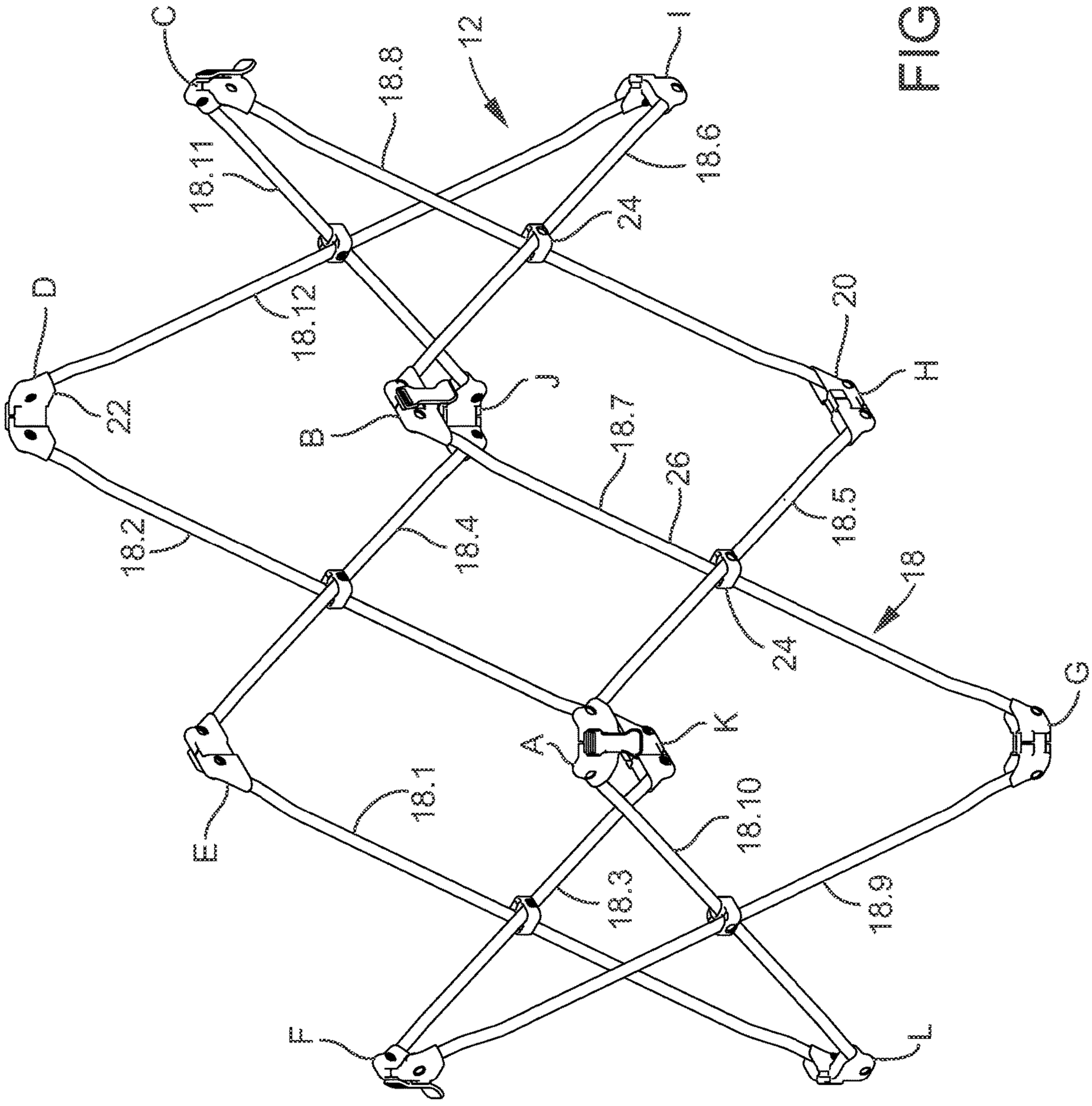

C
18.8
12
I
18.11
18.6
24
D
18.12
20
22
B
J
H
18.7
26
18.2
18.4
18.5
24
18
G
A
K
E
18.1
18.10
18.3
18.9
F
L

FIG. 2

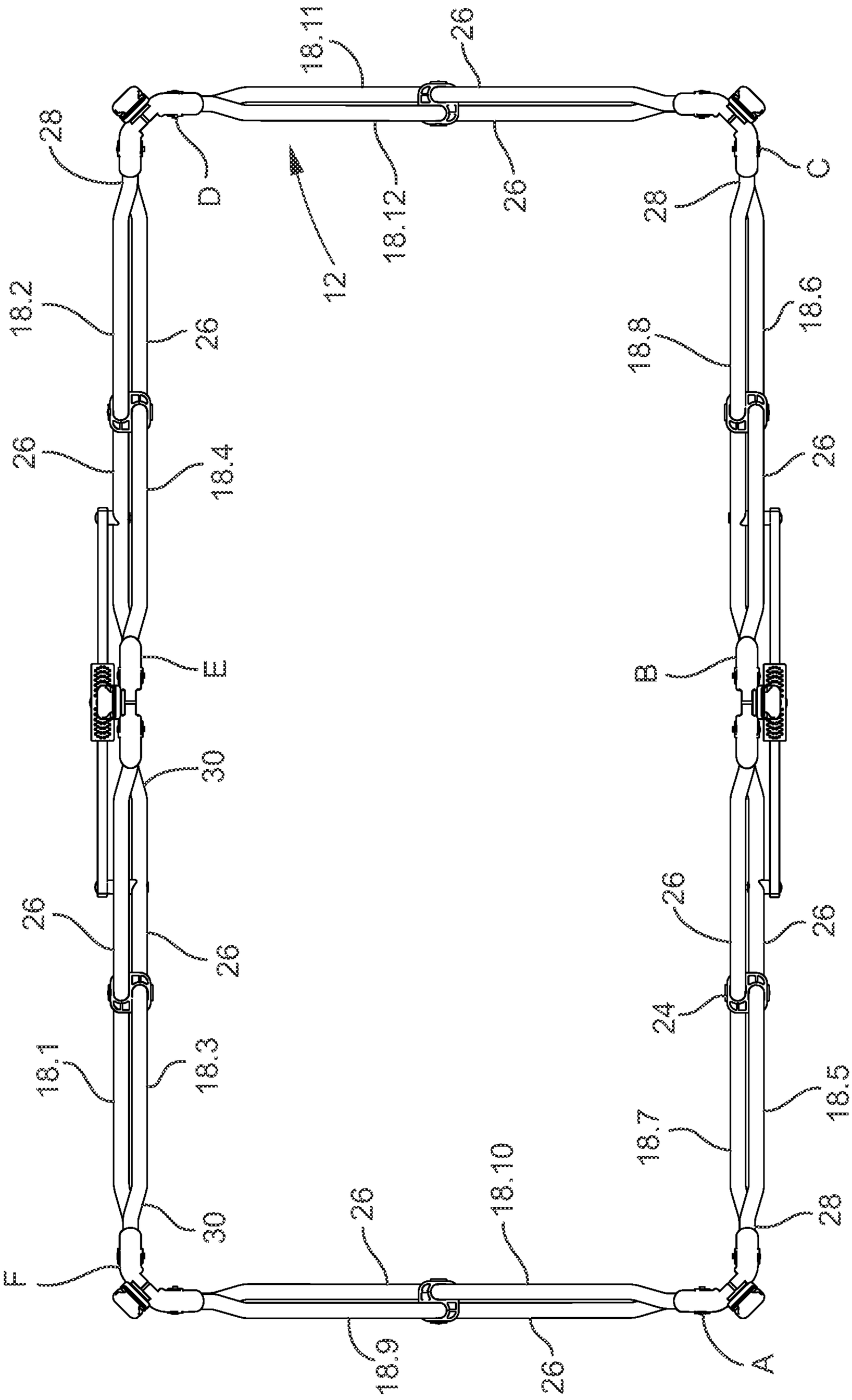

18.11
26
28
D
12
18.12
26
C
28
18.2
26
18.6
18.8
26
18.4
E
30
B
26
26
28
26
26
18.1
18.3
18.7
18.5
30
28
E
26
18.10
18.9
26
A

FIG. 3

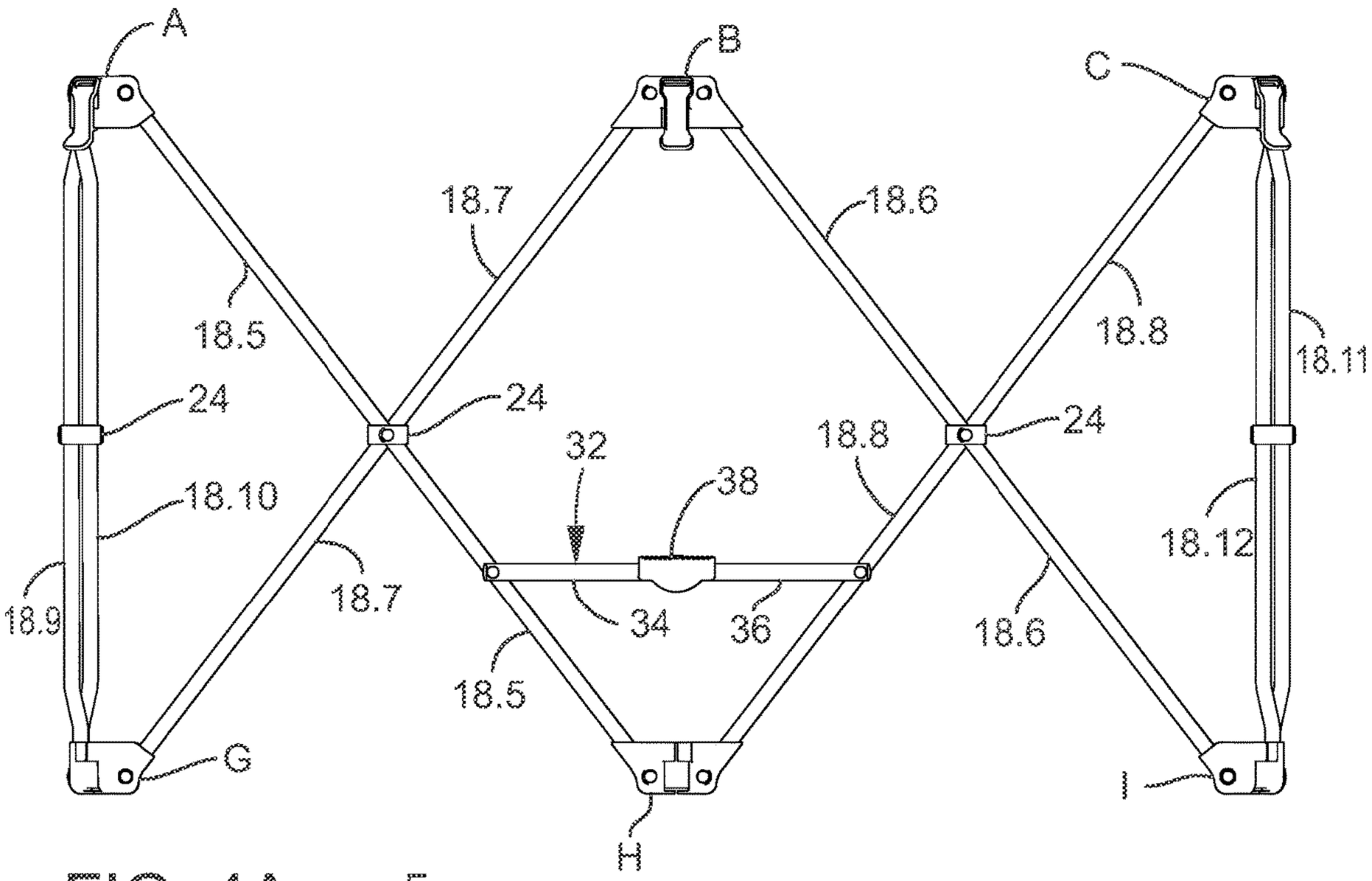

A
B
C
18.7
18.6
18.5
18.8
18.11
24
24
24
32
38
18.8
18.10
18.12
18.9
18.7
34
36
18.6
18.5
G
I
H

FIG. 4A

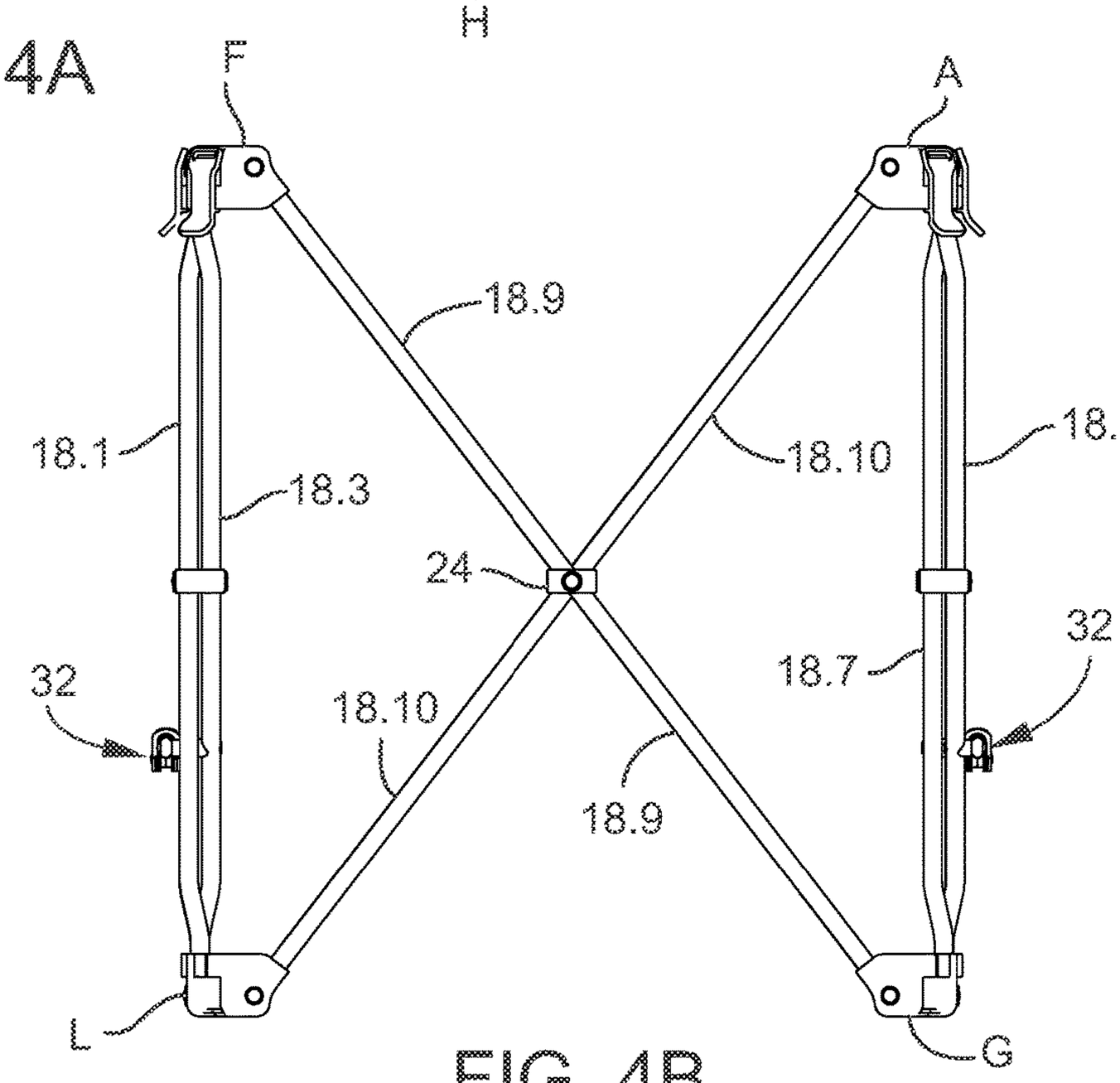

E
A
18.9
18.1
18.3
18.10
18.5
24
32
18.7
32
18.10
18.9
L
G

FIG. 4B

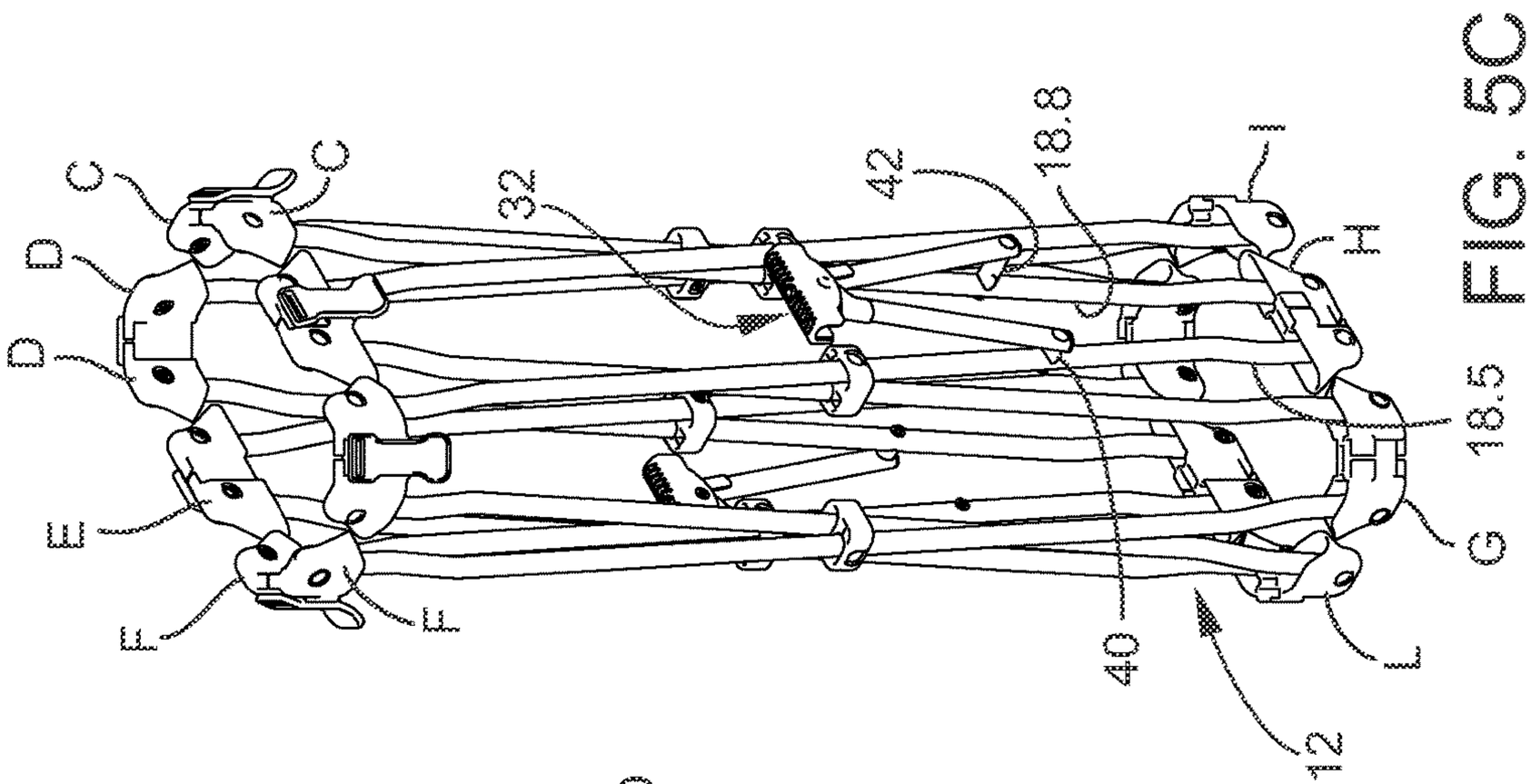


FIG. 5C

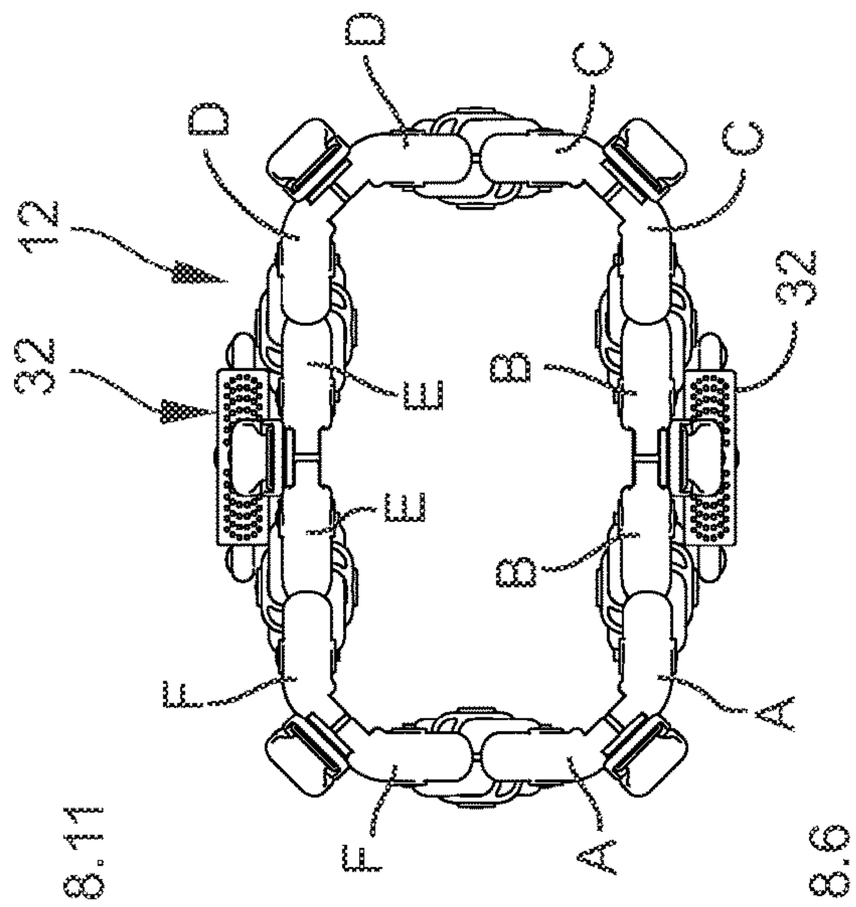


FIG. 5B

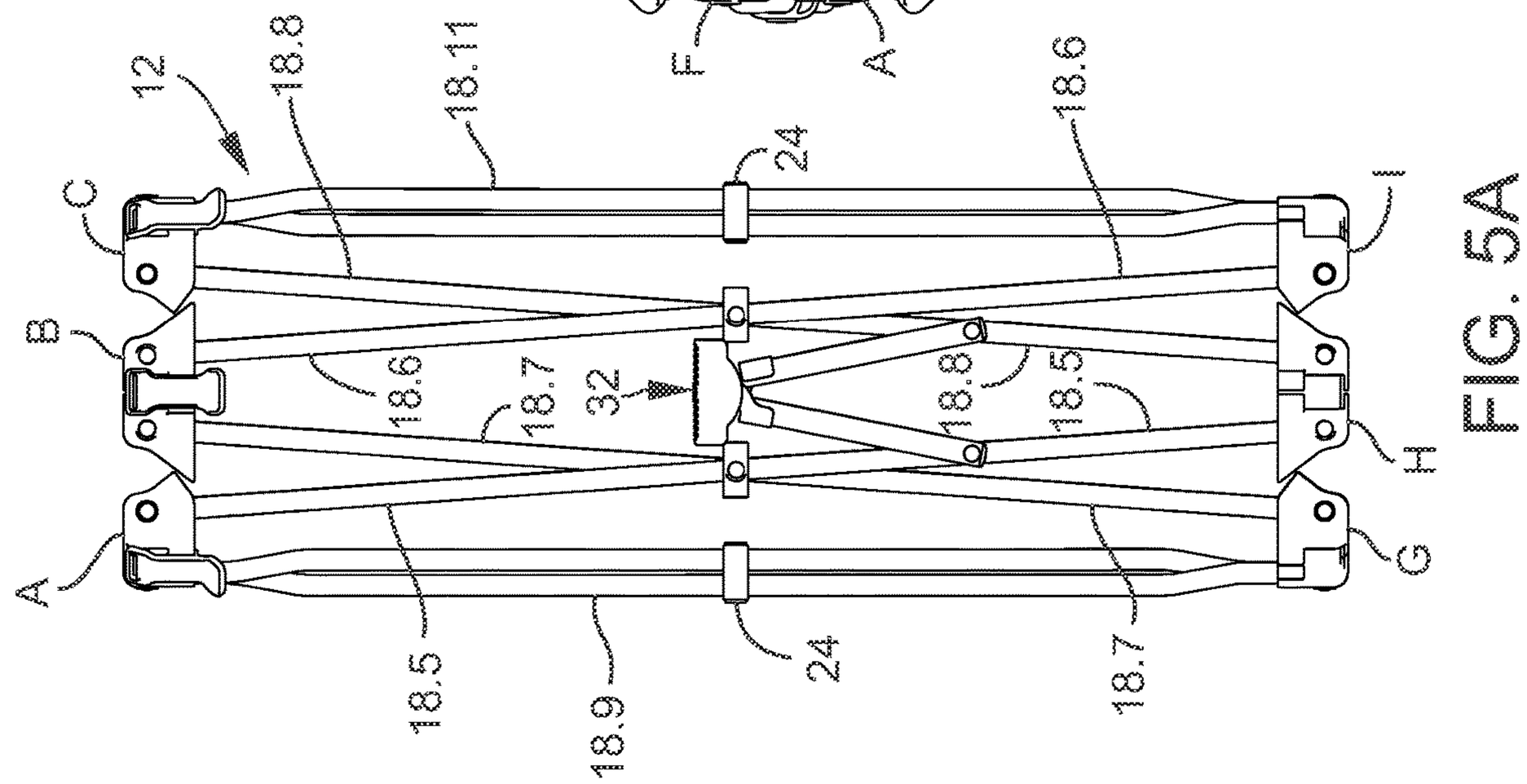


FIG. 5A

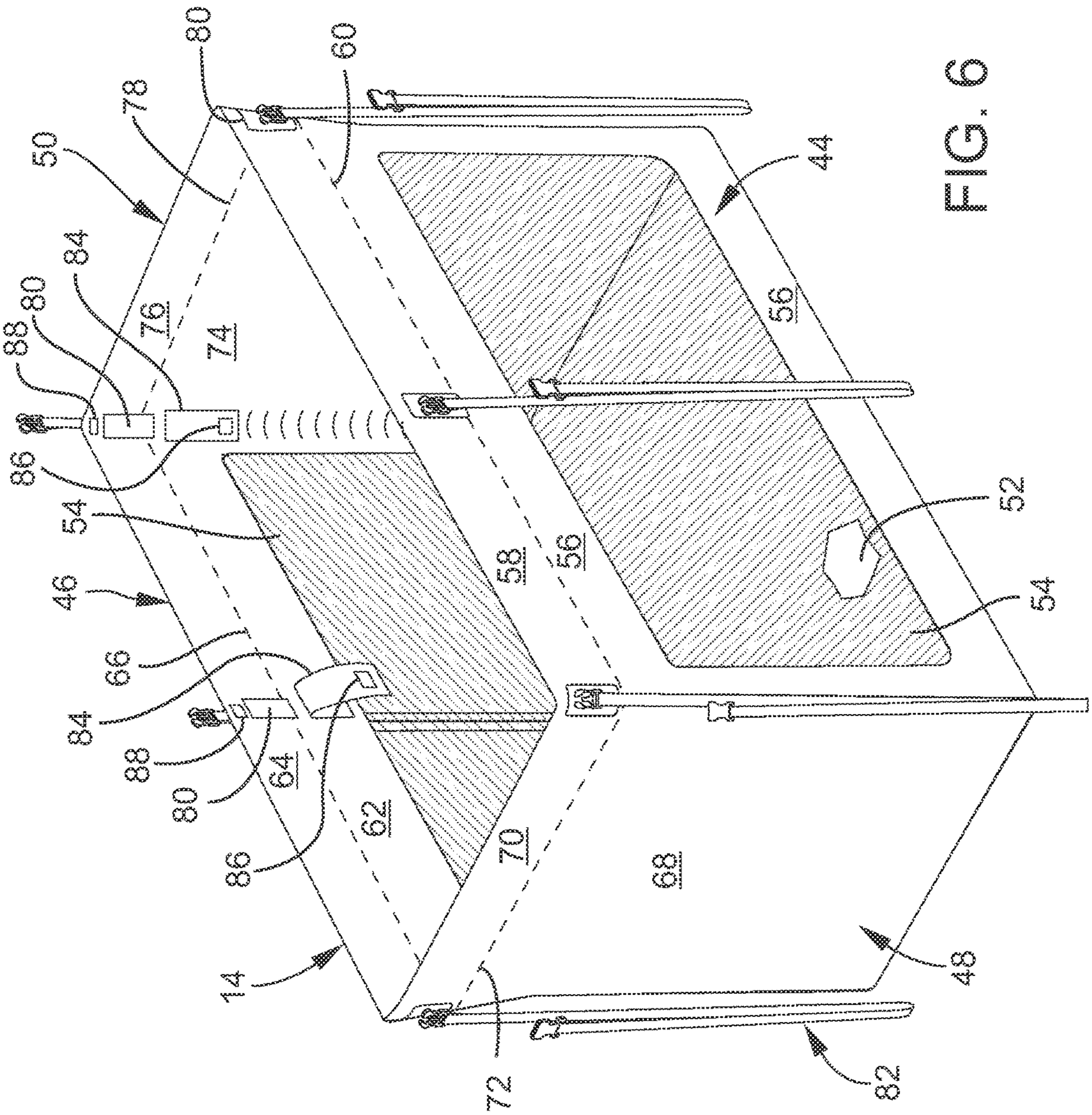

80
60
78
50
44
84
80
88
76
74
56
86
54
52
58
56
46
66
54
84
88
64
80
62
70
68
86
14
48
72
82

FIG. 6

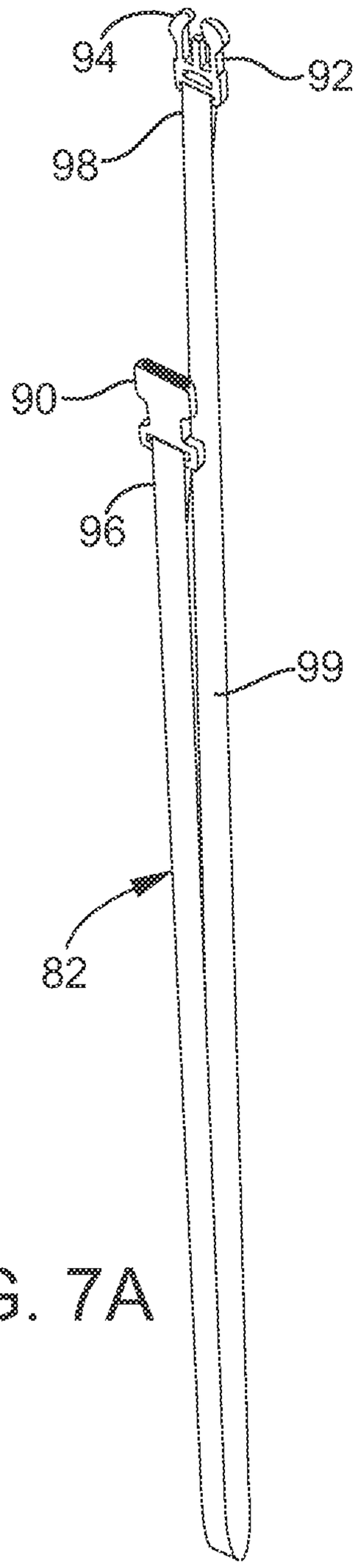


FIG. 7A

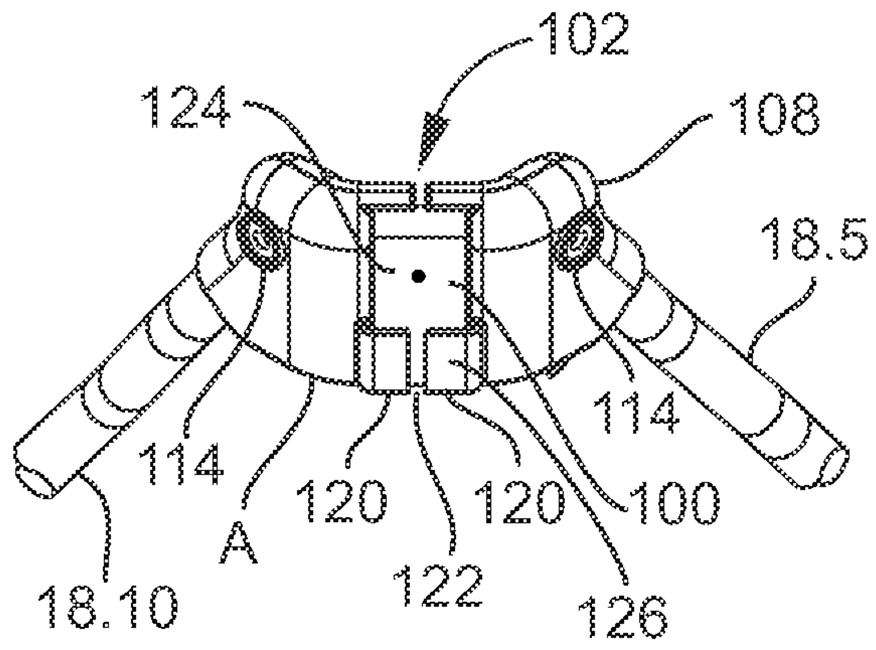
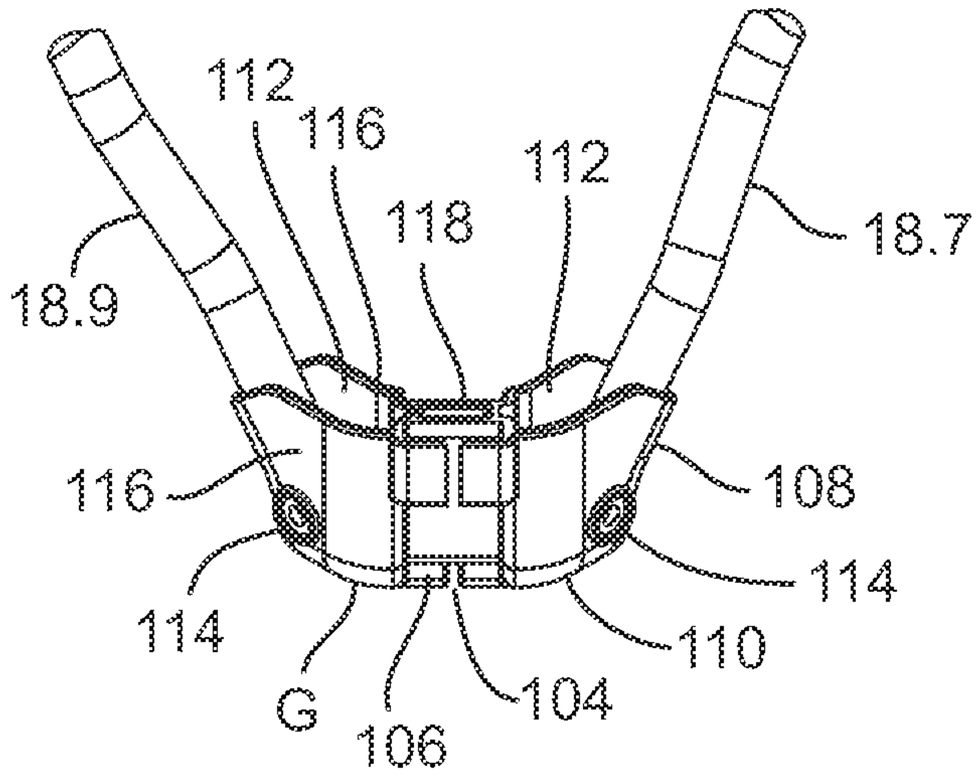


FIG. 7B

FIG. 7C



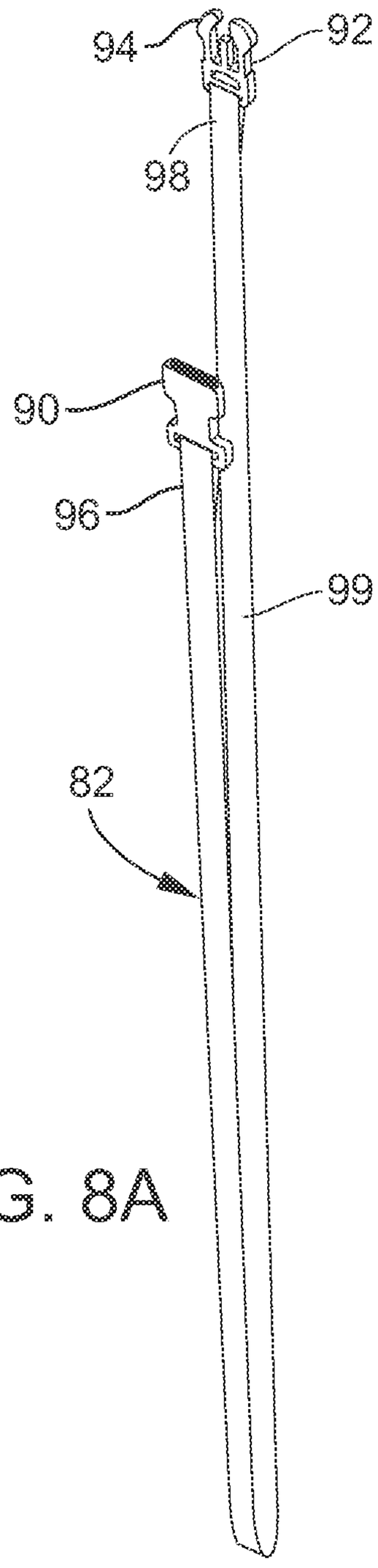


FIG. 8A

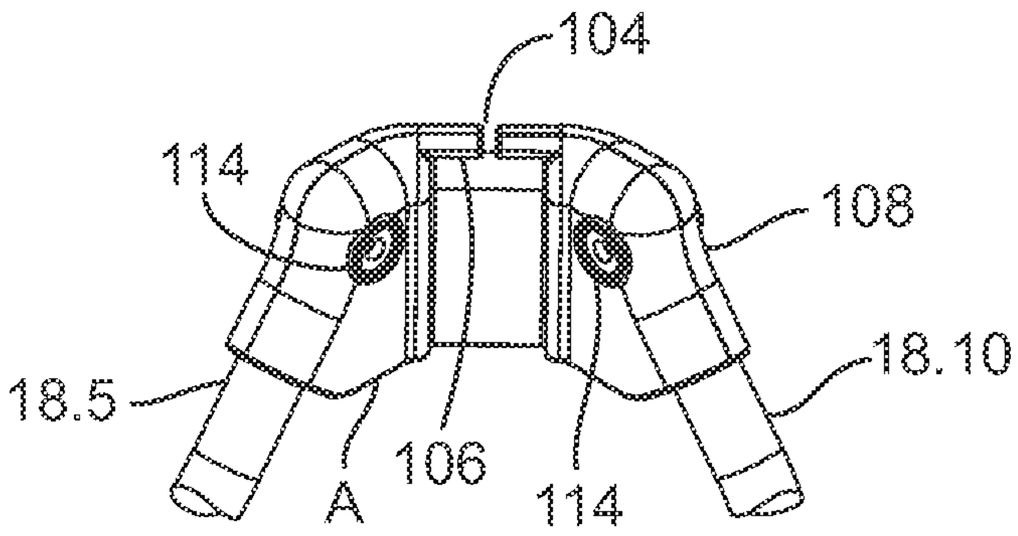


FIG. 8B

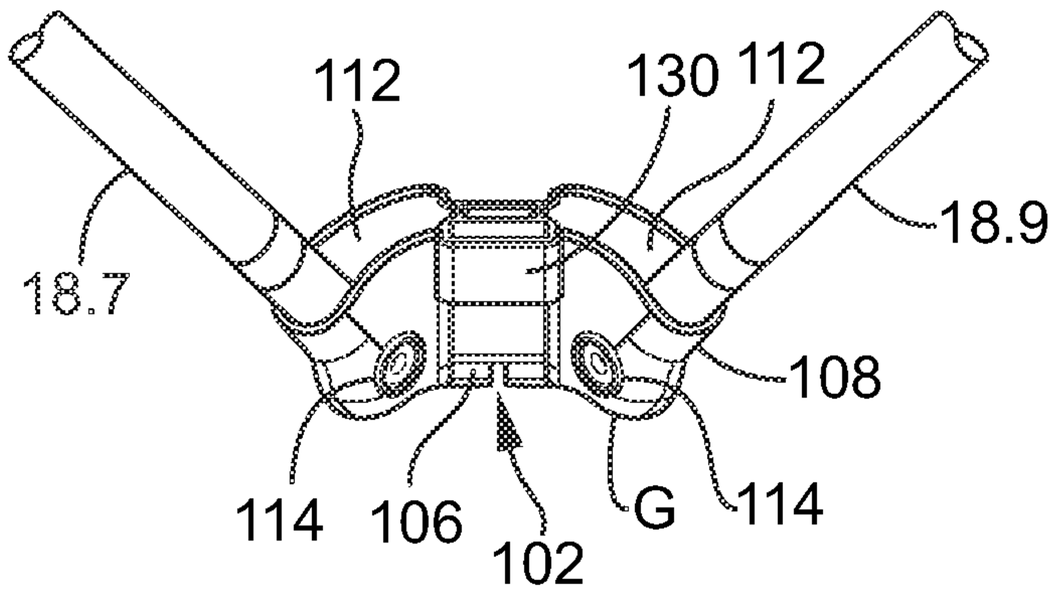


FIG. 8C

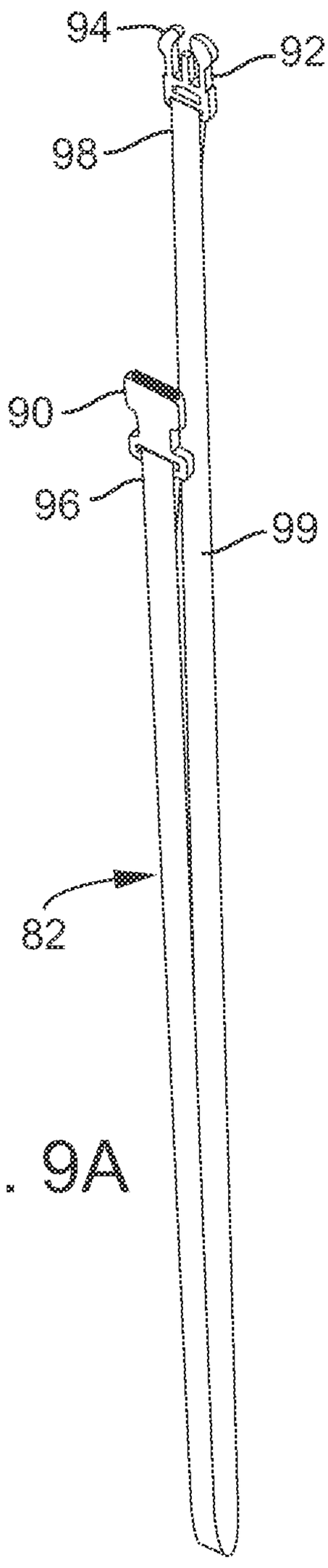


FIG. 9A

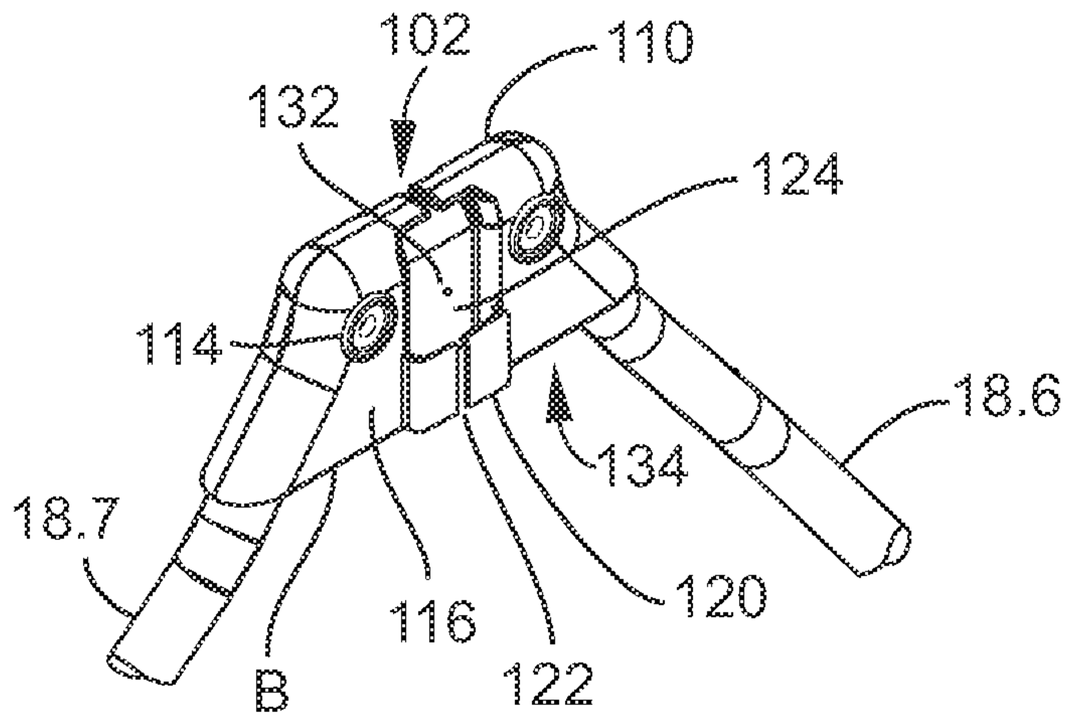
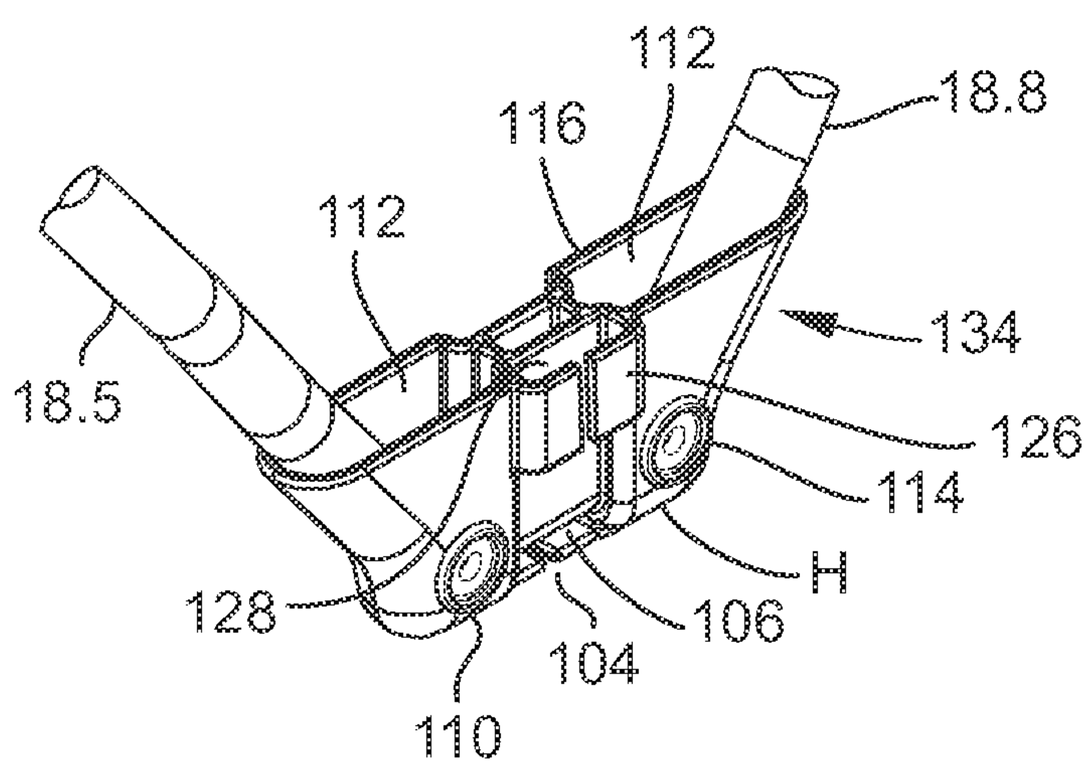


FIG. 9B

FIG. 9C



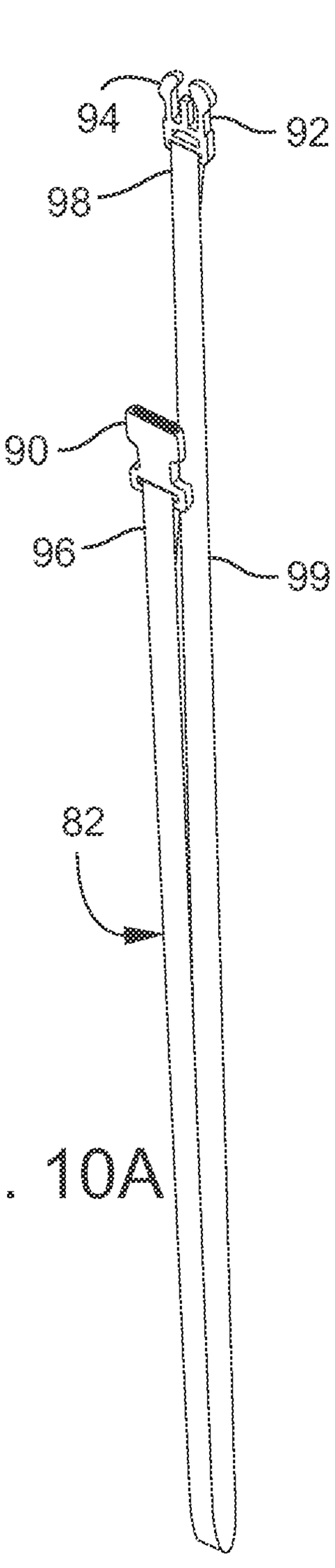


FIG. 10A

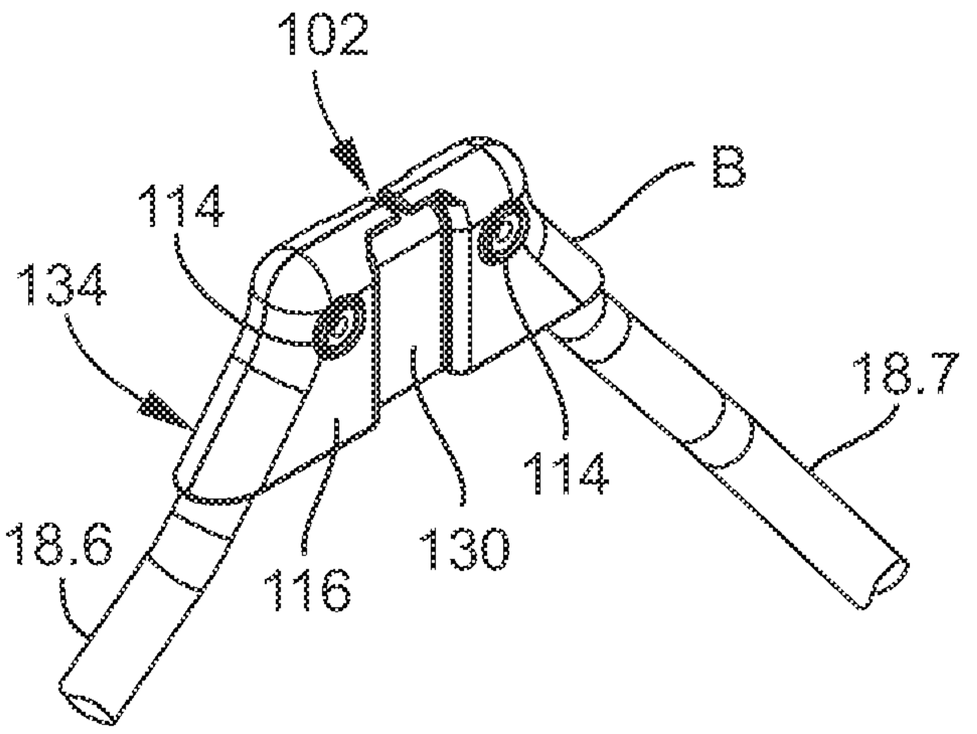


FIG. 10B

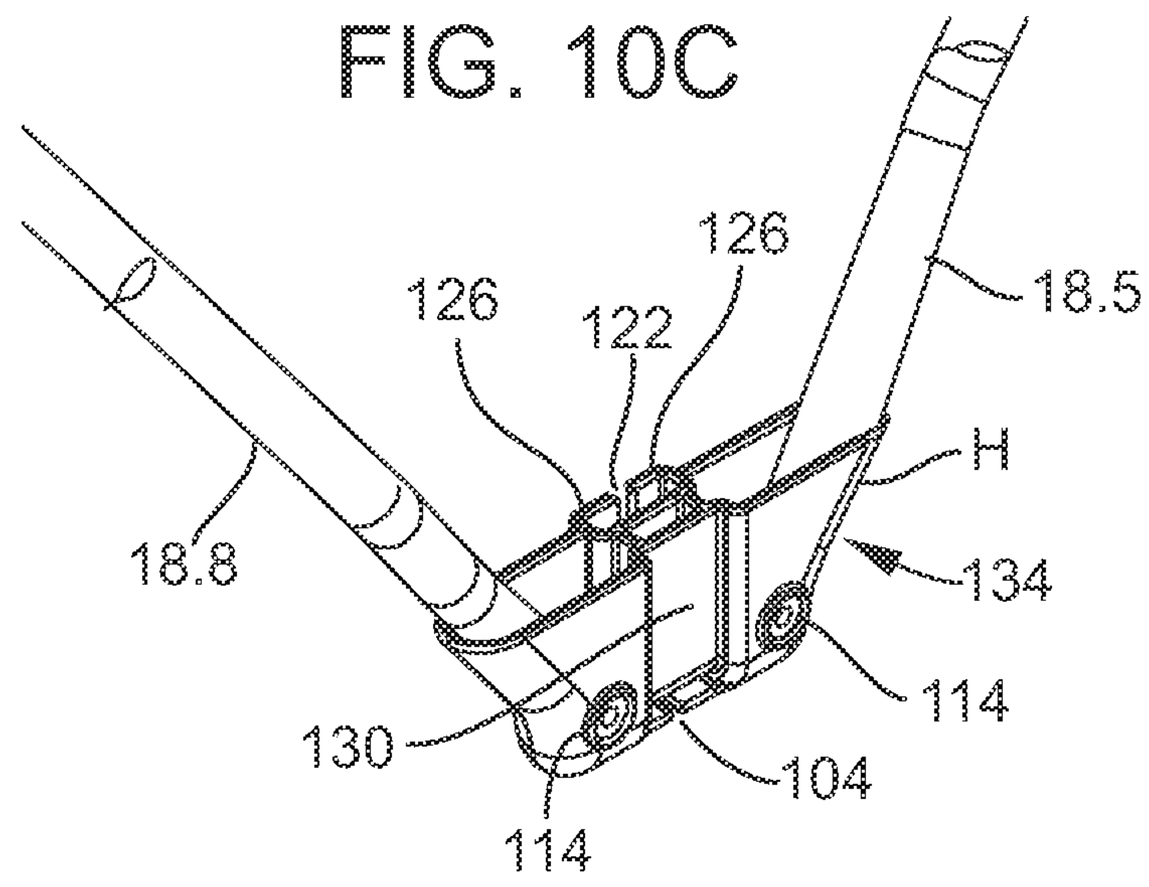


FIG. 10C

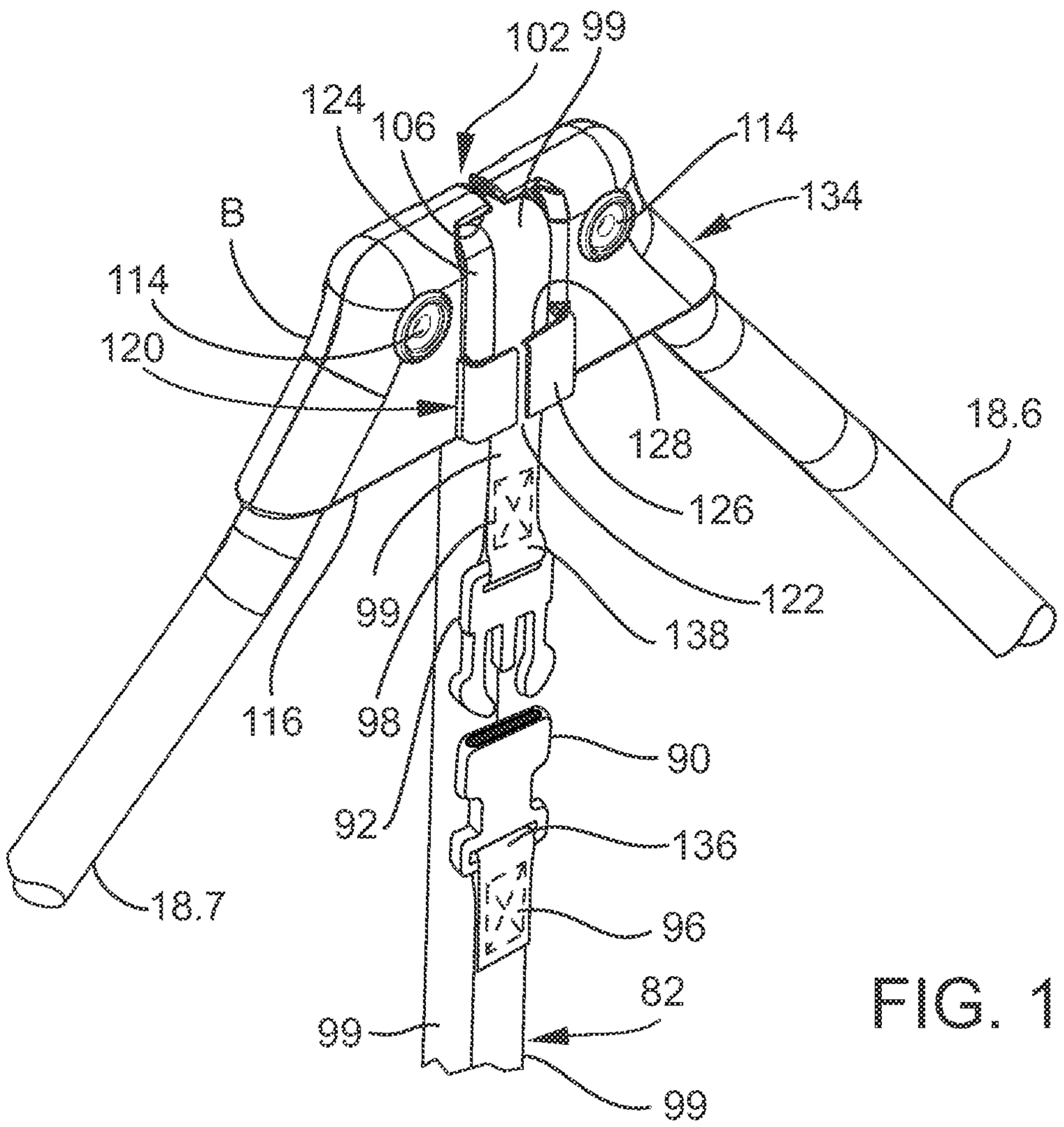

102
99
124
106
114
134
B
114
120
128
18.6
126
122
138
99
116
98
90
92
136
96
18.7
82
99
99

FIG. 11

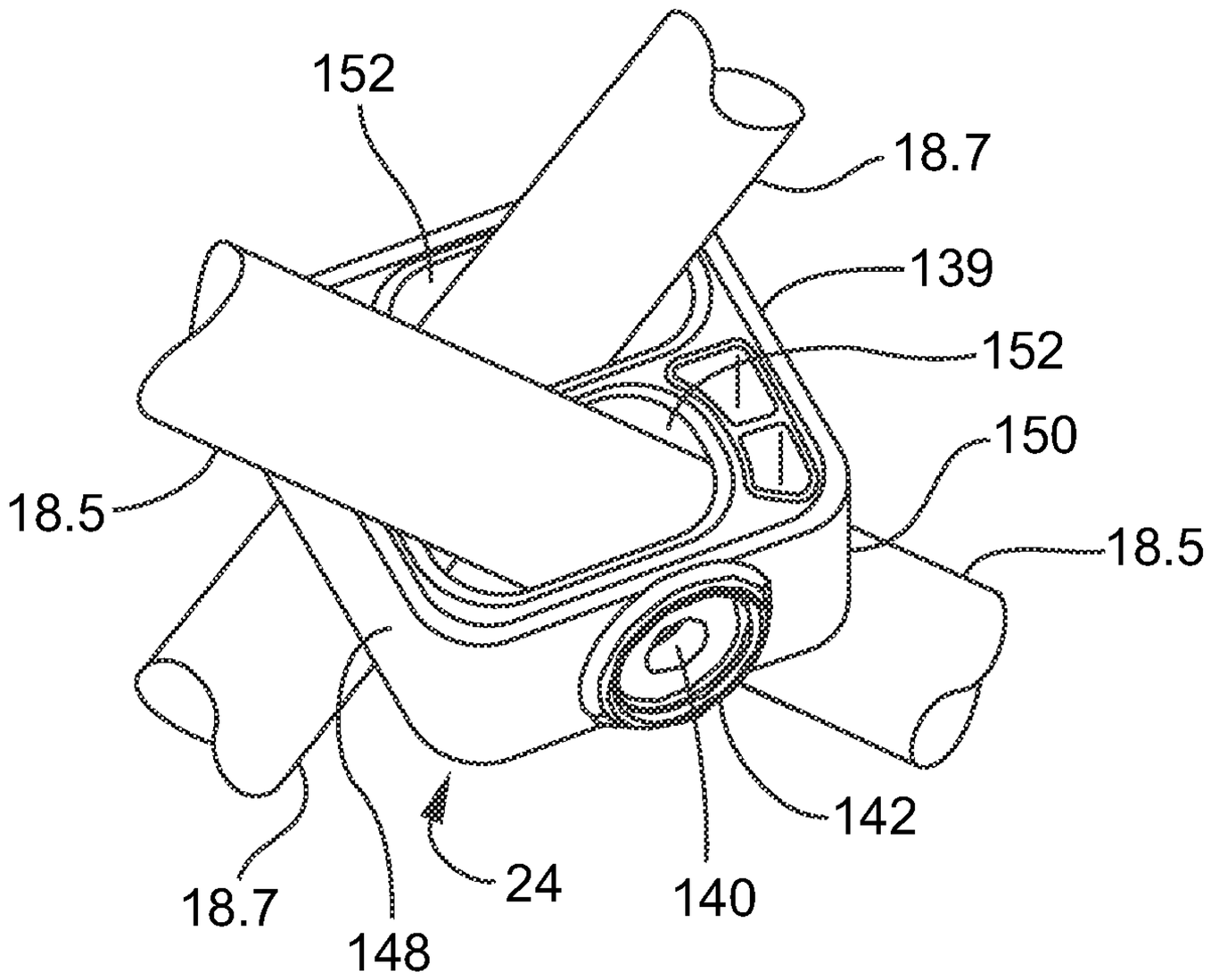


FIG. 12A

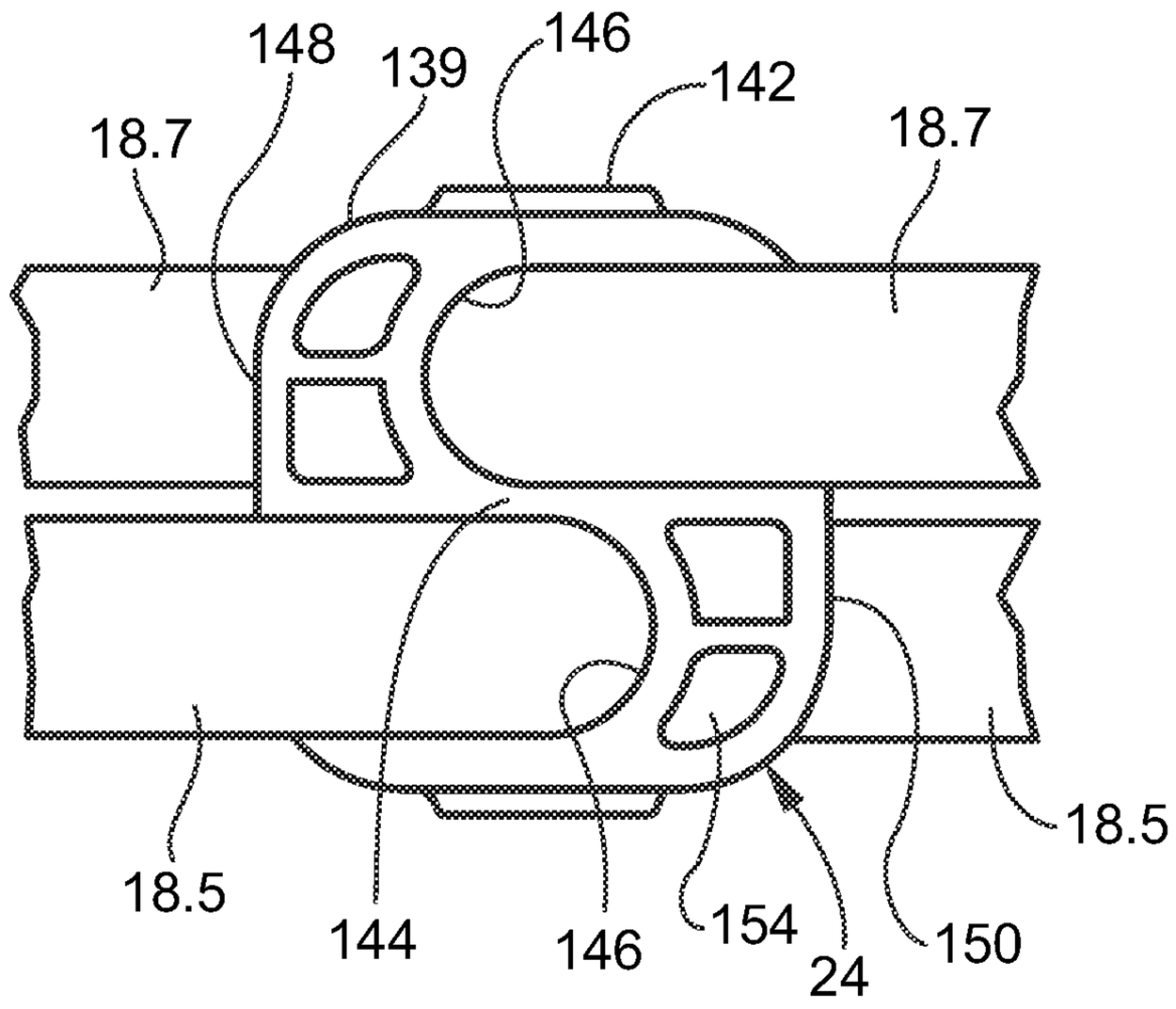


FIG. 12B

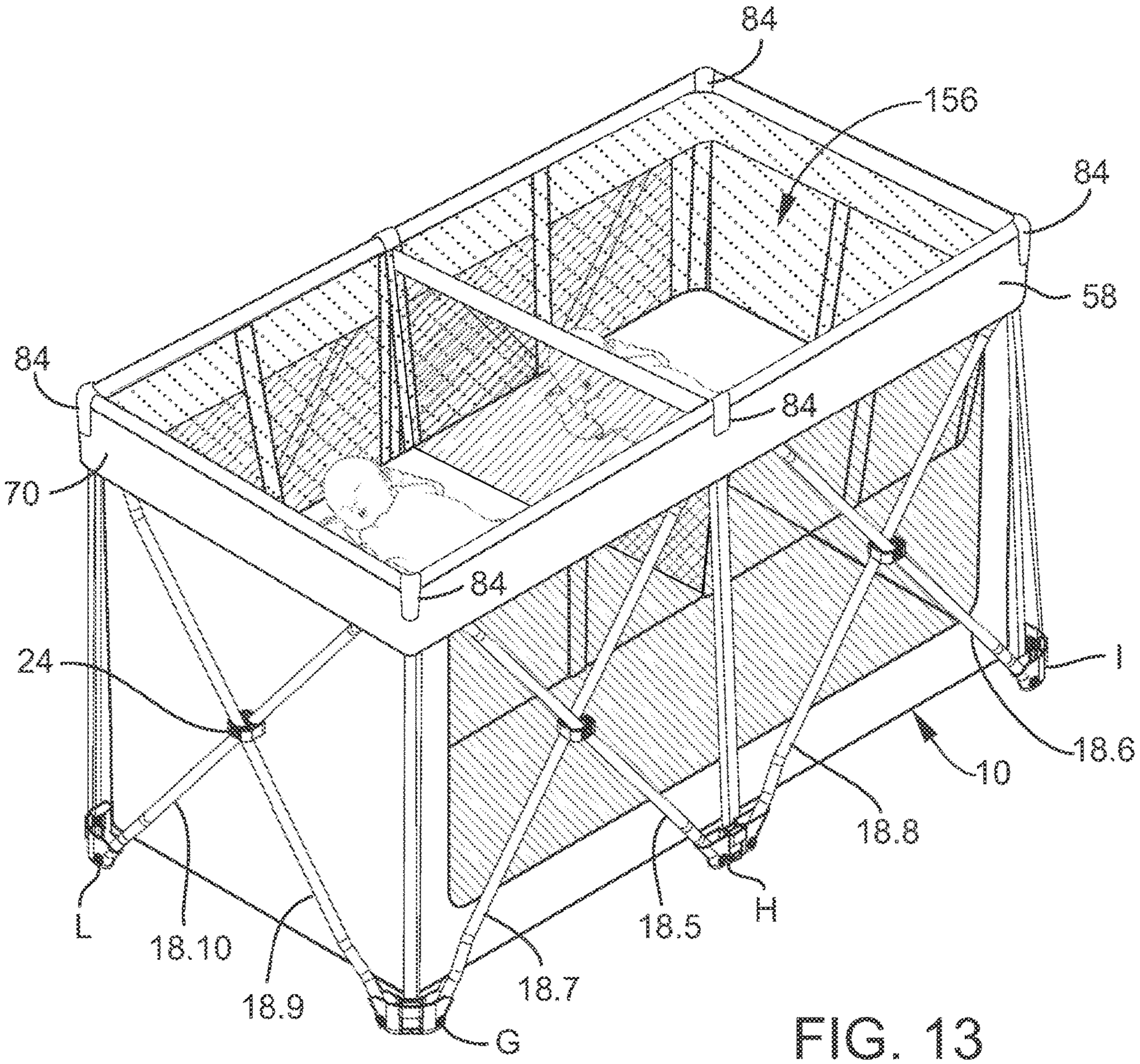
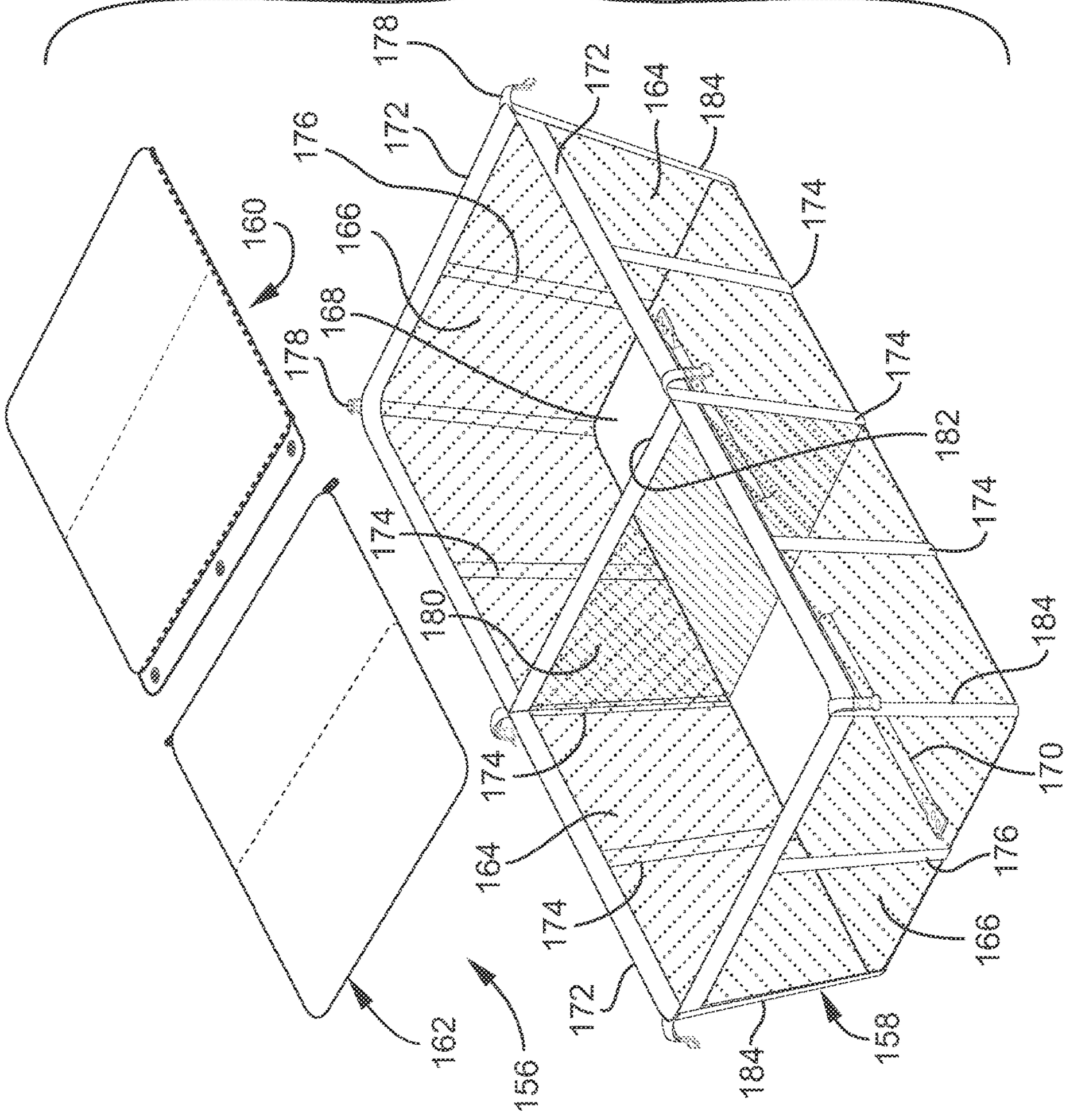


FIG. 13

FIG. 4


178
172
164
184
176
172
174
160
166
168
178
174
182
174
180
184
174
164
174
172
162
156
184
158
166
176
170

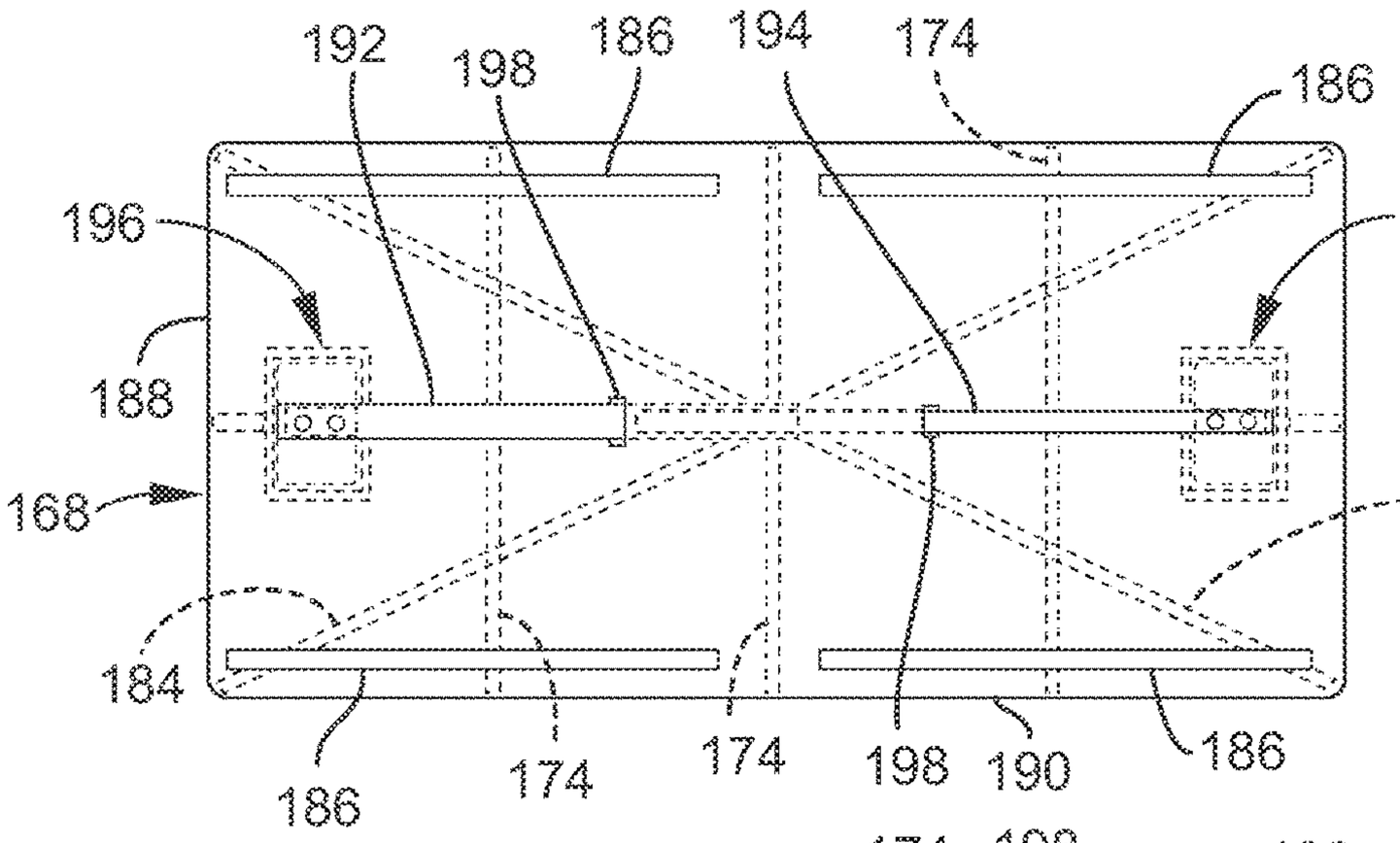


FIG. 15A

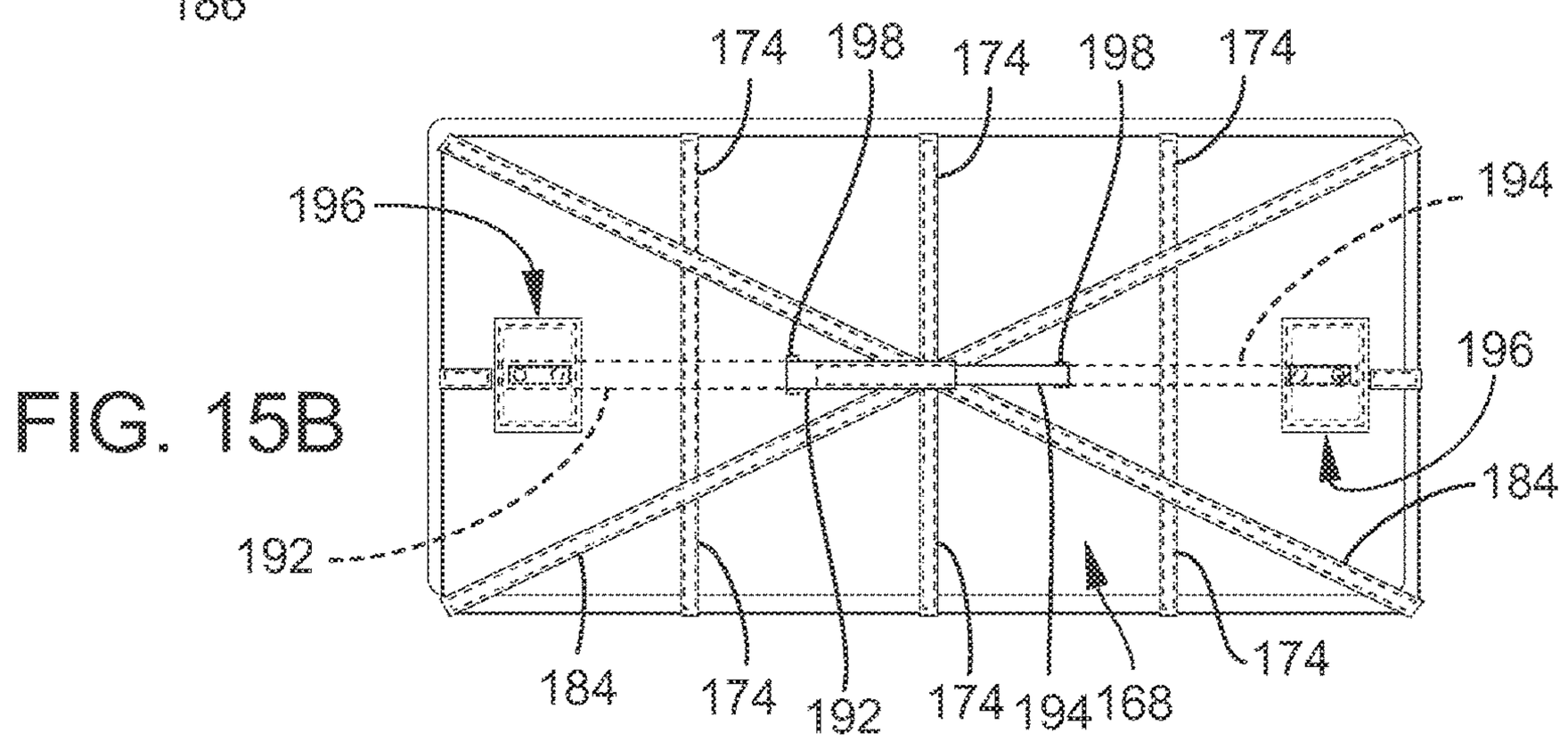


FIG. 15B

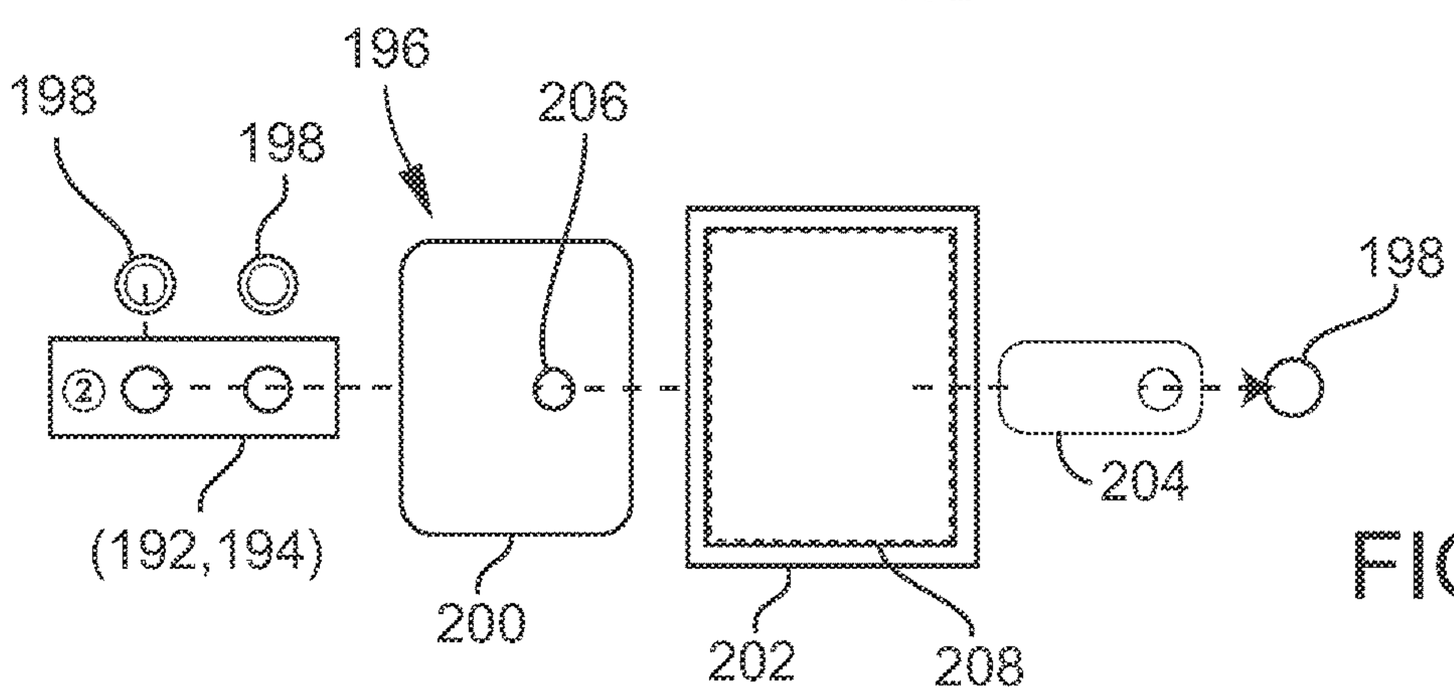


FIG. 15C

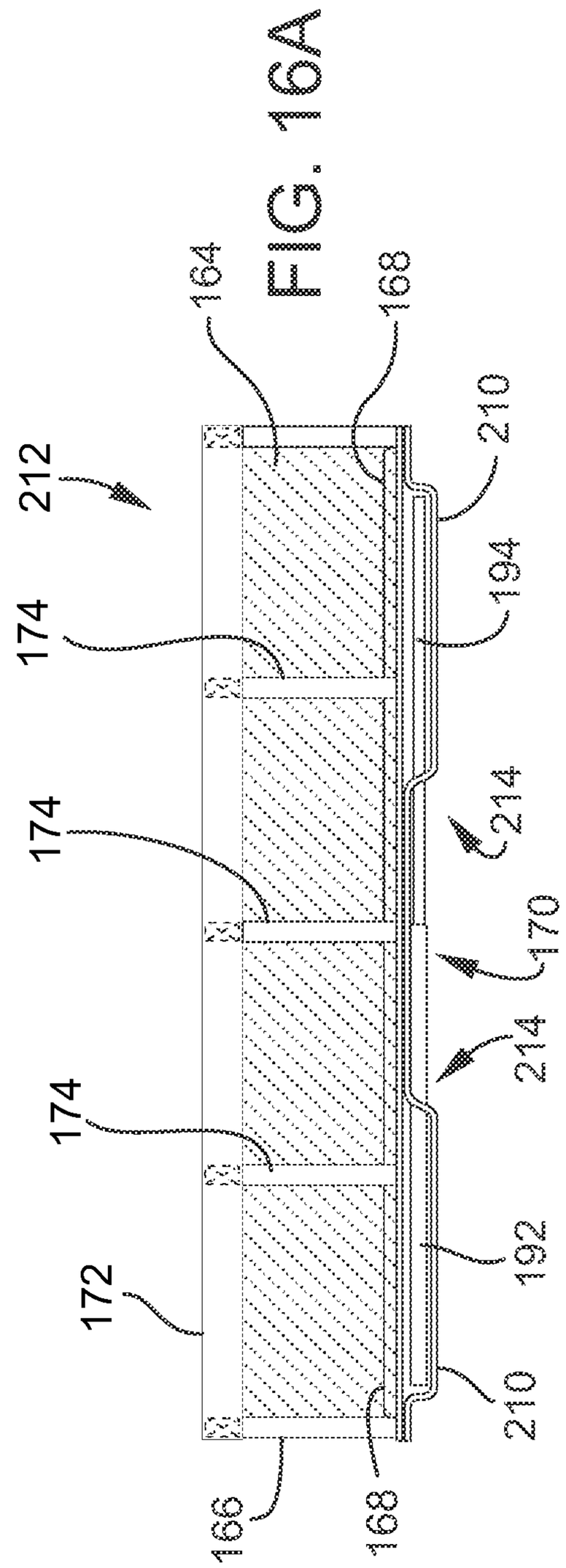


FIG. 16A

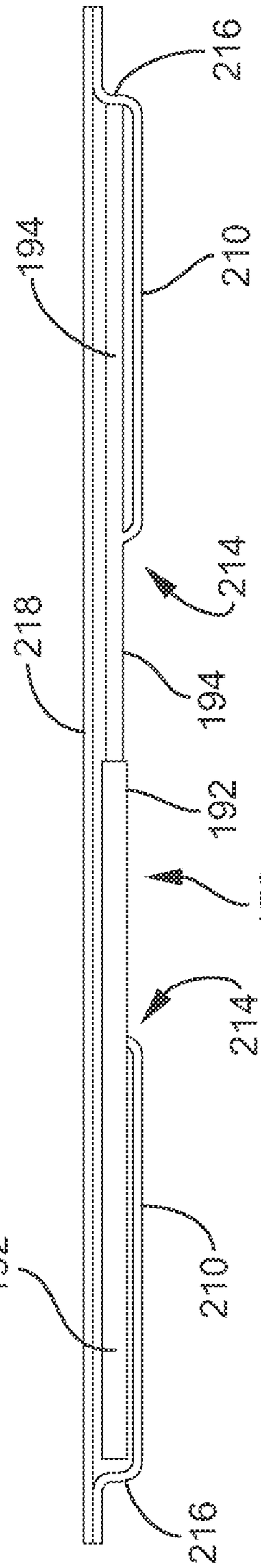


FIG. 16B

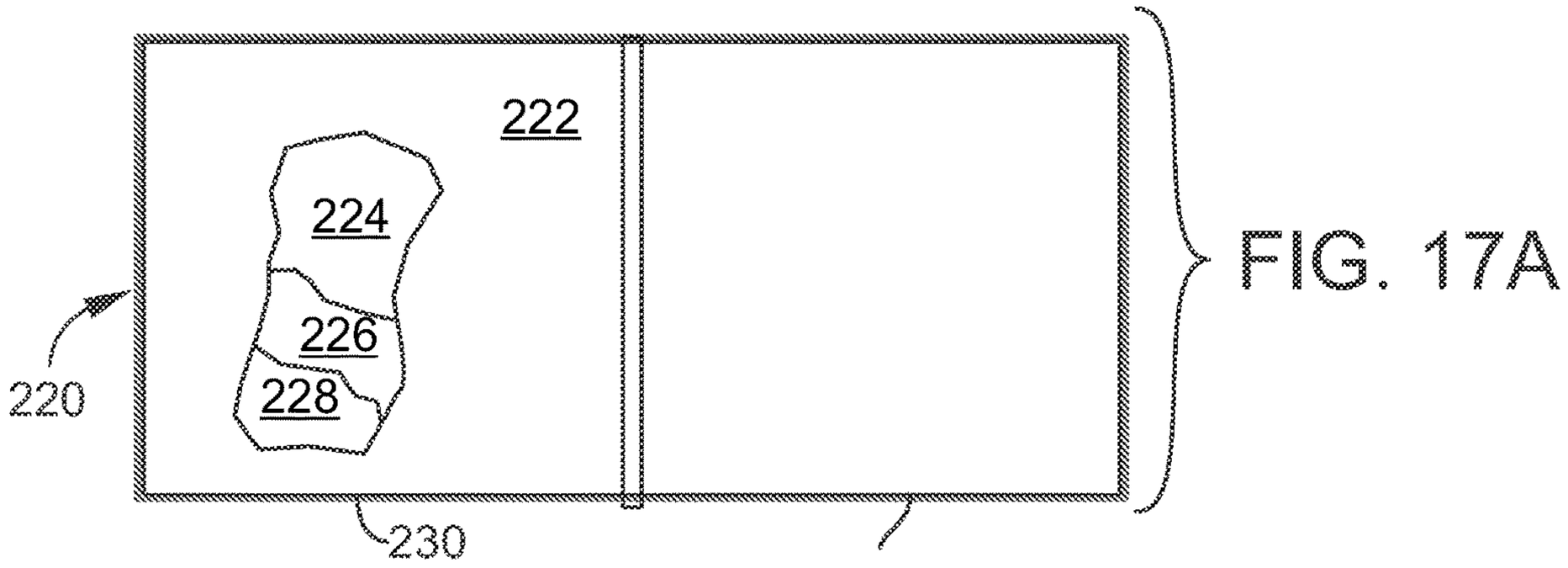


FIG. 17A

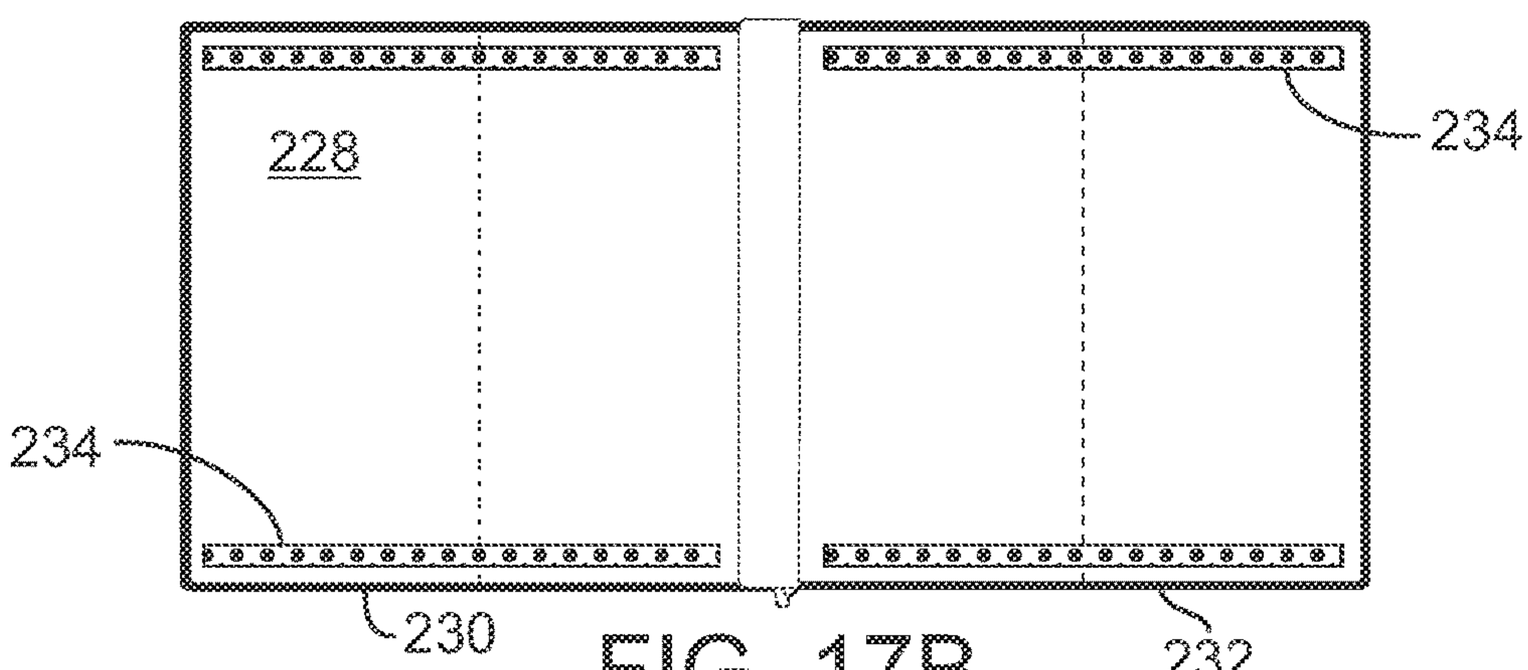


FIG. 17B

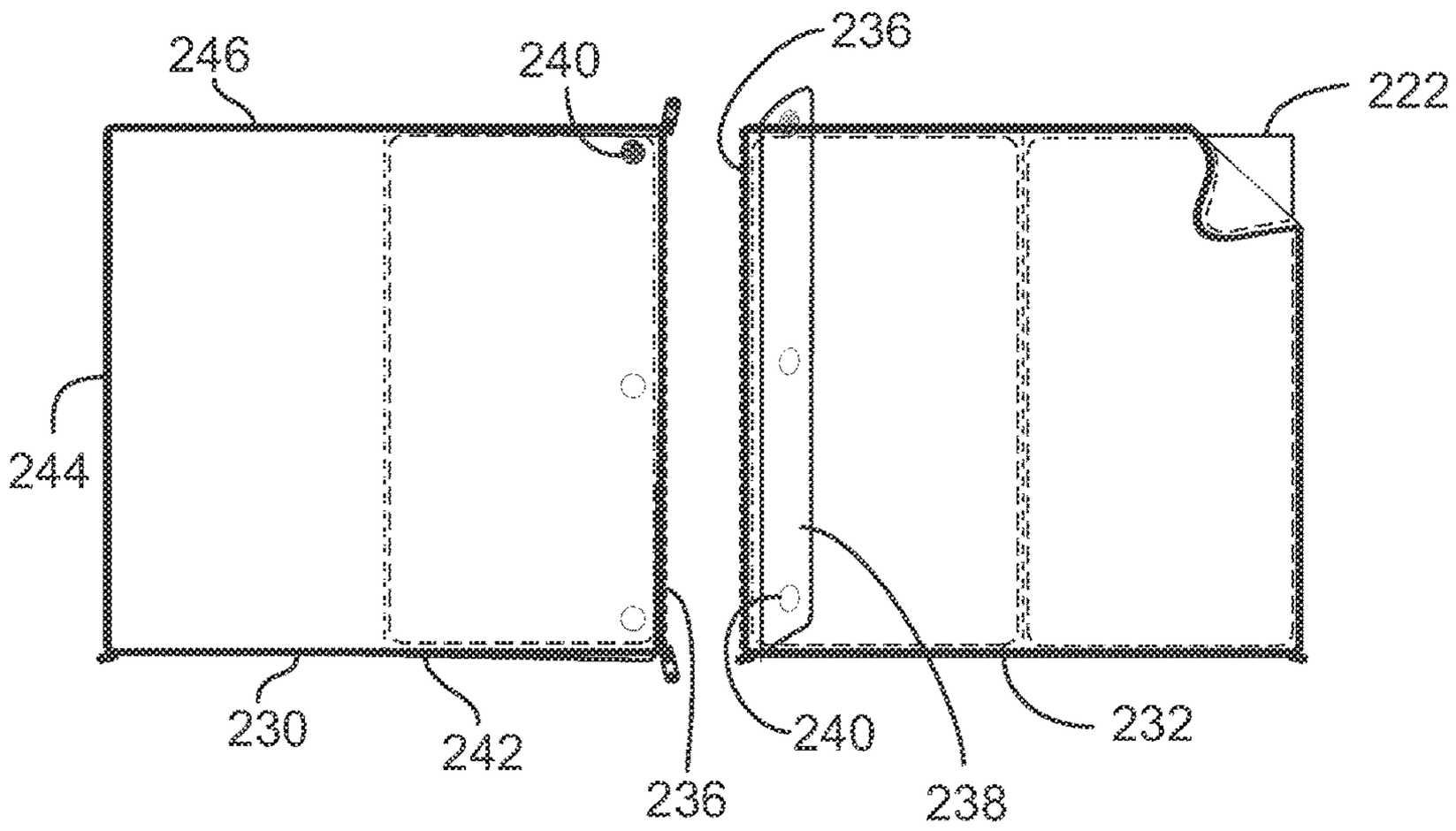


FIG. 17C

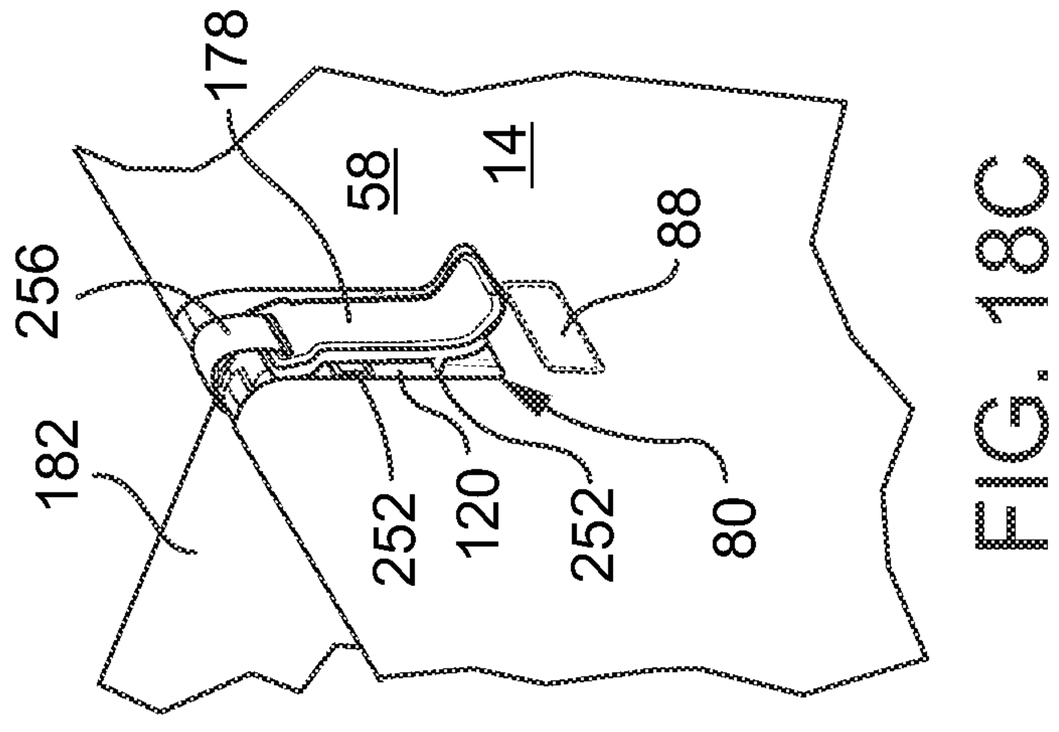


FIG. 18C

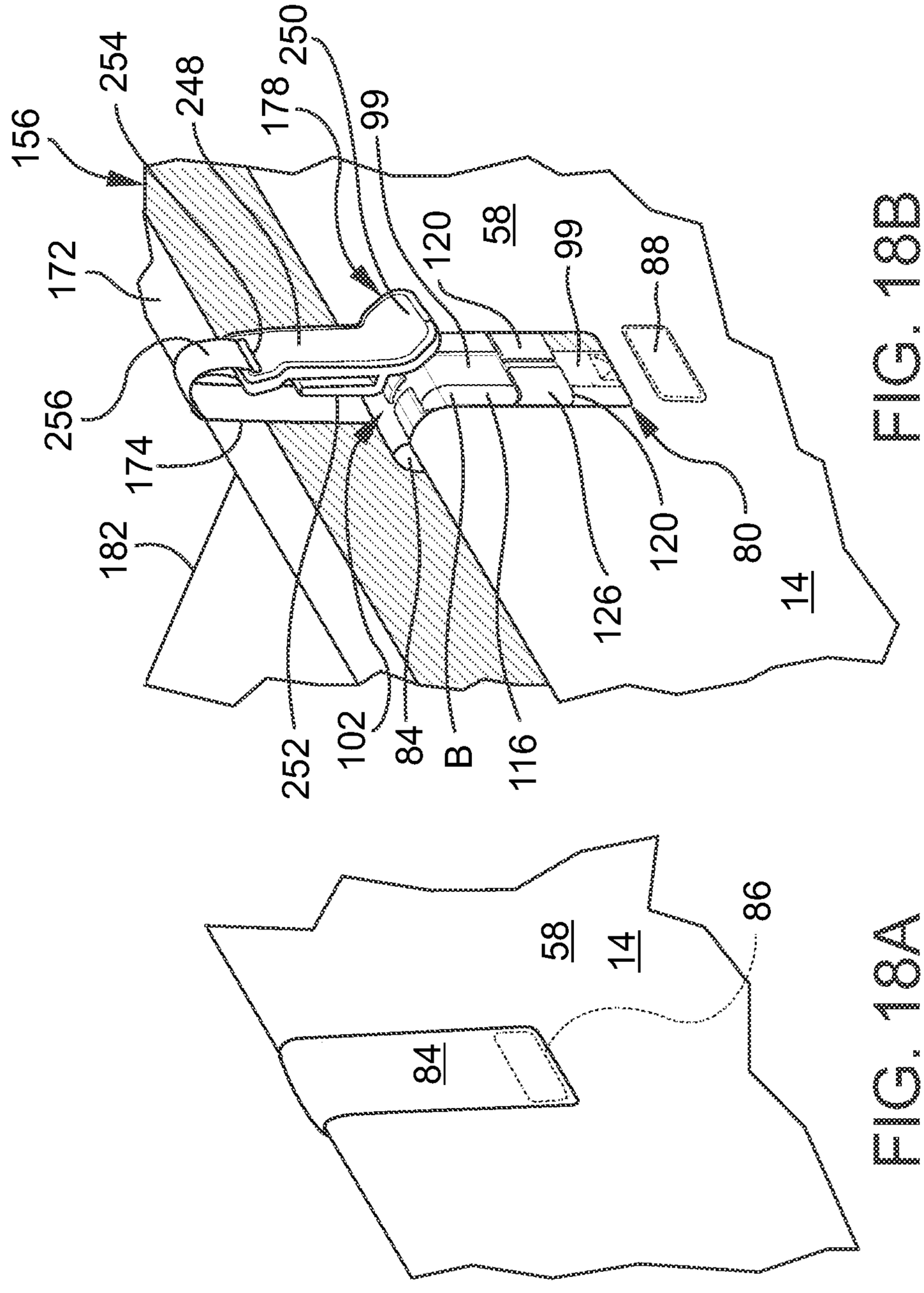


FIG. 18B

FIG. 18A

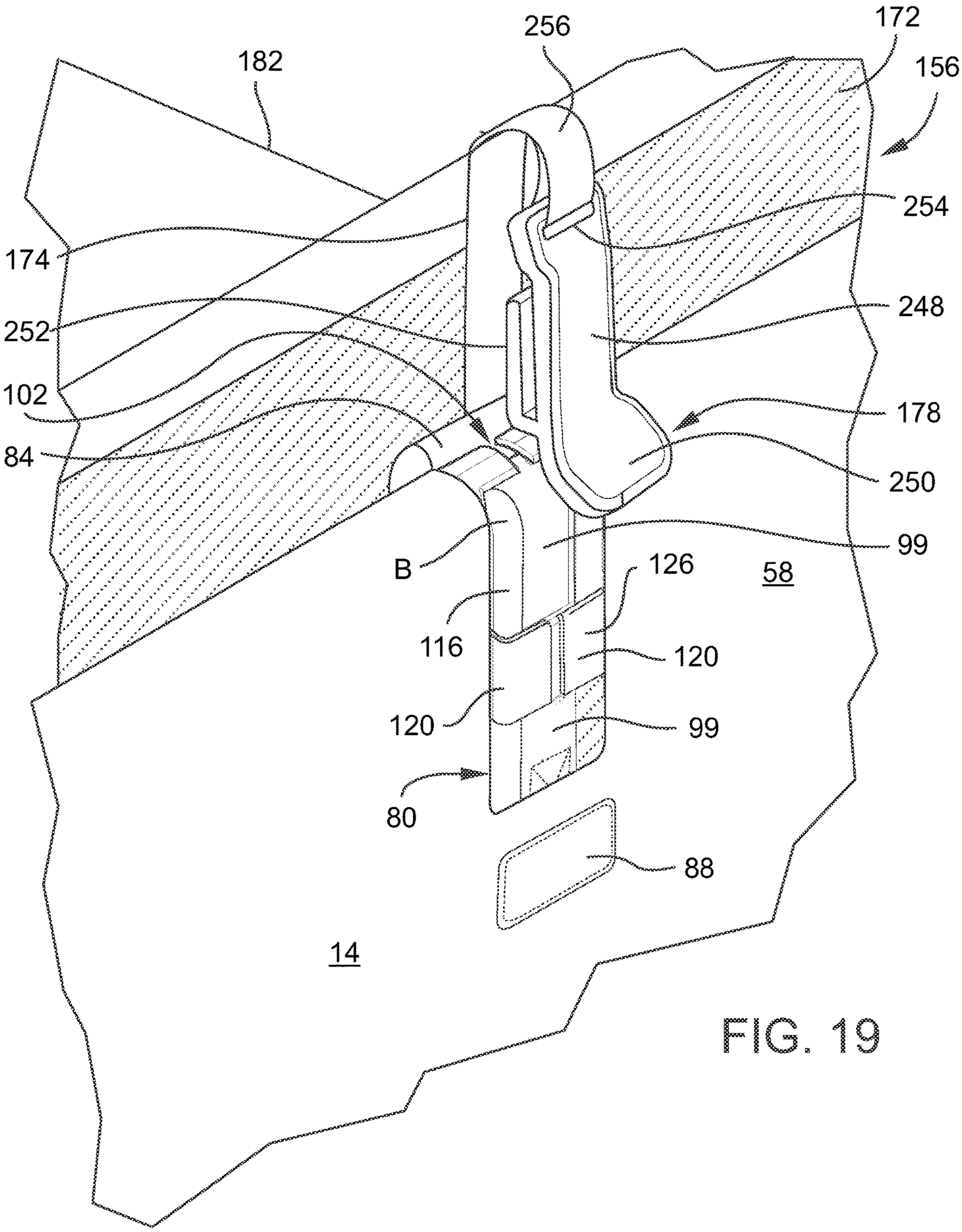

256
172
182
156
254
174
248
252
178
102
250
84
99
B
126
58
116
120
120
99
80
88
14

FIG. 19

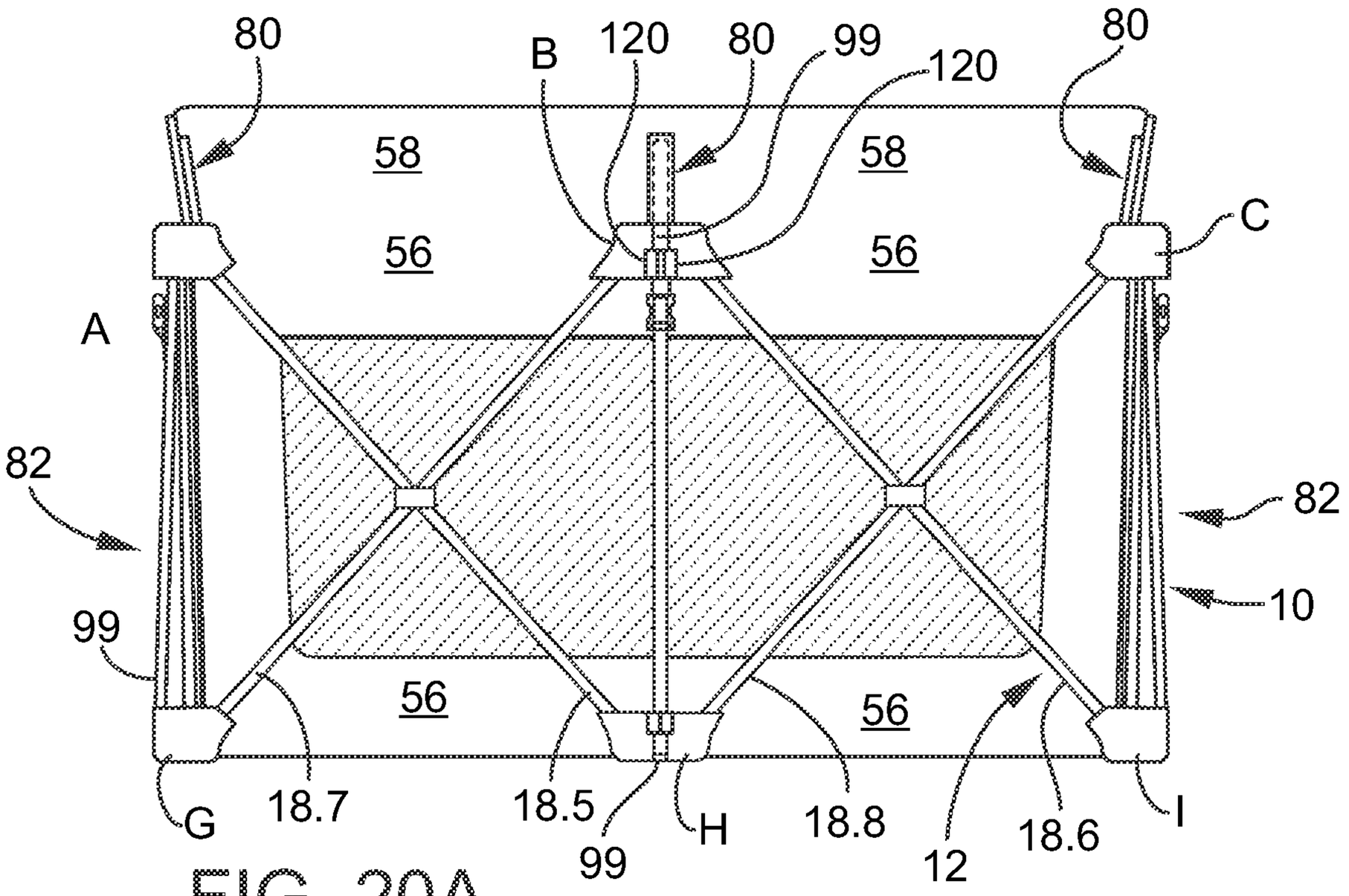


FIG. 20A

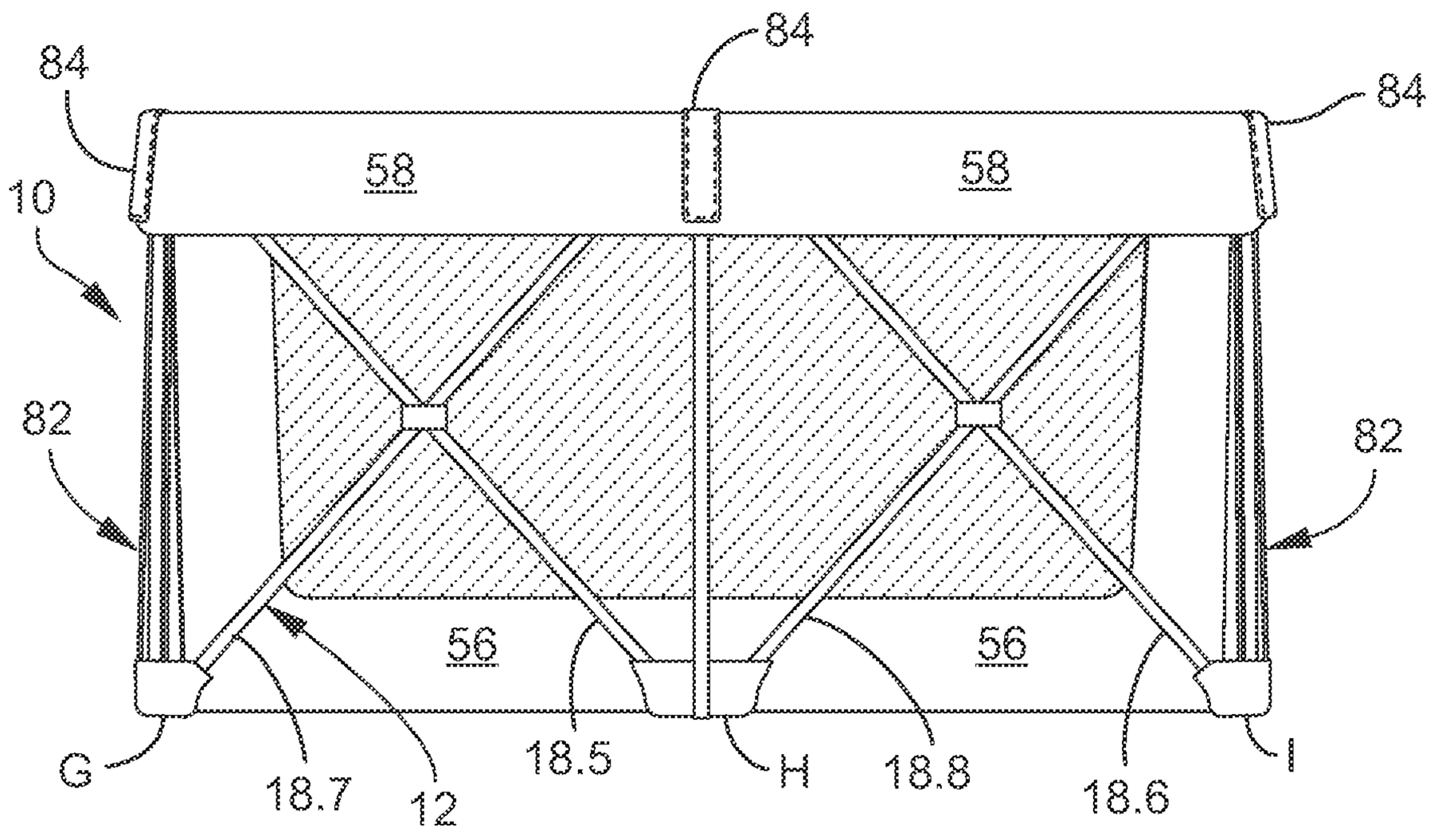


FIG. 20B

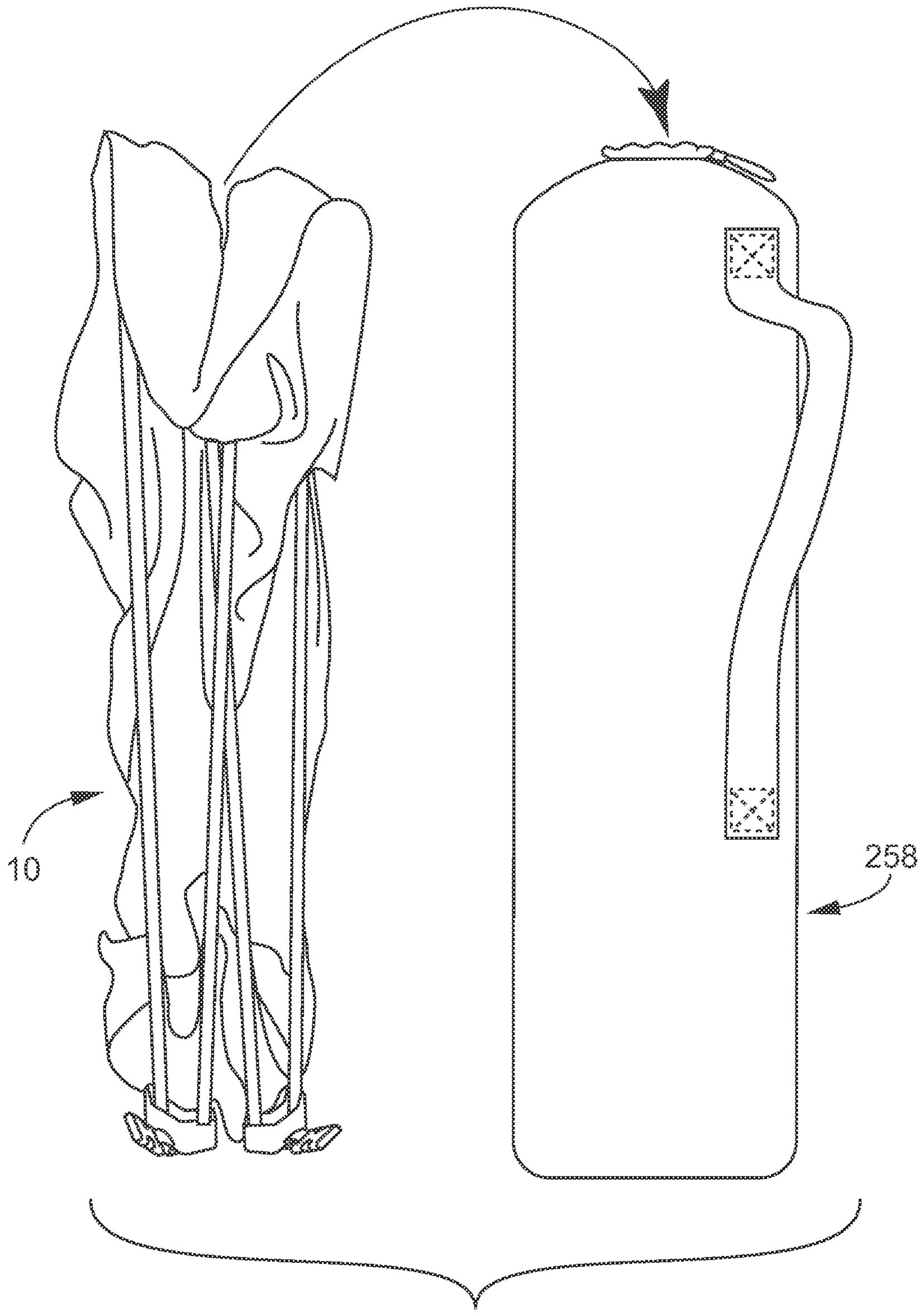


FIG. 21

TRAVEL NURSERY APPARATUS

This application claims the benefit under 35 U.S.C. 119(e) of U.S. Provisional Patent Application No. 63/012,749 filed Apr. 20, 2020, which application is hereby incorporated by reference in its entirety into this application.

FIELD OF THE INVENTION

The present invention relates to a scissoring frame, more particularly to a scissoring frame having a flexible receptacle therein, and more specifically to a scissoring frame having a flexible receptacle therein and a bassinet depending into the flexible receptacle.

BACKGROUND OF THE INVENTION

Most beds have a rectangular sleeping surface. Most mattresses have a rectangular sleeping surface. Of course, beds and mattresses having sleeping surfaces of other shapes, such as round shapes, do exist. Beds and mattresses have rectangular sleeping surfaces because, perhaps, a person rolls from side to side when sleeping. This natural action defines a rectangular shape. If a person spins on a vertical axis while asleep, such a person may prefer a round bed.

SUMMARY OF THE INVENTION

A feature of the present invention is a travel nursery apparatus.

Another feature of the present invention is the provision in a travel nursery apparatus, of a frame where the frame includes a set of support members, upper junctions, lower junctions, and intermediate junctions, where the upper junctions and lower junctions are vertically disposed relative to each other, and where each of the upper, lower, and intermediate junctions pivotally engage at least two of the support members.

Another feature of the present invention is the provision in a travel nursery apparatus, of the frame including a first pair of support members that cross each other and a second pair of support members that cross each other, where the first and second pairs of support members are adjacent to each other, where the first and second pairs of support members engage a common upper junction, where the first and second pairs of support members engage a common lower junction, where the first pair of support members cross at a first intermediate junction, and where the second pair of support members cross at a second intermediate junction.

Another feature of the present invention is the provision in a travel nursery apparatus, of a flexible receptacle engaged to the frame and having an outer sidewall portion, an inner sidewall portion, and a floor, where the inner sidewall portion is disposed inwardly of the frame, where the outer sidewall portion is disposed outwardly of the frame, and where the outer sidewall portion and inner sidewall portion of the flexible receptacle are integral and one-piece with each other.

Another feature of the present invention is the provision in a travel nursery apparatus, of the upper junctions defining an upper rectangle and the lower junctions defining a lower rectangle.

Another feature of the present invention is the provision in a travel nursery apparatus, of the inner sidewall portion and the floor of the flexible receptacle defining five faces of a parallelepiped.

Another feature of the present invention is the provision in a travel nursery apparatus, of the support members defining a first train and a second train, where the first train includes at least six support members, at least three upper junctions, and at least three lower junctions, where the second train includes at least six support members different from that included in the first train, at least three upper junctions different from that included in the first train, and at least three lower junctions different from that included in the first train, and where the first train weaves into and out of the second train.

Another feature of the present invention is the provision in a travel nursery apparatus, of each of the support members including a straight portion, where the first pair of support members includes an upwardly extending support member that extends from a lower junction G to an upper junction B, where the second pair of support members includes an upwardly extending support member that extends from a lower junction H to an upper junction C, and where the straight portions of the upwardly extending support members are disposed in a common plane.

Another feature of the present invention is the provision in a travel nursery apparatus, of the first pair of support members including a downwardly extending support member that extends from an upper junction A to a lower junction H, where the second pair of support members includes a downwardly extending support member that extends from upper junction B to a lower junction I, and where the straight portions of the downwardly extending support members D are disposed in a common plane.

Another feature of the present invention is the provision in a travel nursery apparatus, of the frame further including a third pair of support members that cross each other and a fourth pair of support members that cross each other, where the third and fourth pair of support members are adjacent to each other, where the third and fourth pairs of support members engage a common upper junction, where the third and fourth pairs of support members engage a common lower junction, where the third pair of support members cross at a third intermediate junction, where the fourth pair of support members cross at a fourth intermediate junction, and where the third and fourth pairs of support members face the first and second pairs of support members.

Another feature of the present invention is the provision in a travel nursery apparatus, of the frame further including a fifth pair of support members that cross each other, where the fifth pair of support members share upper junctions with the first and third pairs of support members, and where the fifth pair of support members share lower junctions with the first and third pairs of support members.

Another feature of the present invention is the provision in a travel nursery apparatus, of the frame further including a sixth pair of support members that cross each other, where the sixth pair of support members share upper junctions with the second and fourth pairs of support members, and where the sixth pair of support members share lower junctions with the second and fourth pairs of support members.

Another feature of the present invention is the provision in a travel nursery apparatus, of at least one of the upper junctions being a corner upper junction, where the corner upper junction includes first and second support member receptacles with respective first and second axis, where the first and second axis are disposed in first and second planes that are disposed at a right angle to each other.

Another feature of the present invention is the provision in a travel nursery apparatus, of where at least one of the lower junctions is a corner lower junction, where the corner

lower junction includes first and second support member receptacles with respective first and second axis, where the first and second axis are disposed in first and second planes that are disposed at a right angle to each other.

Another feature of the present invention is the provision in a travel nursery apparatus, of the intermediate junction including a pin engaging crossing support members.

Another feature of the present invention is the provision in a travel nursery apparatus, of the intermediate junction including a piece having first and second through openings, where a first support member extends through the first through opening and is pivotally engaged to the piece, where a second support member extends through the second through opening and is pivotally engaged to the piece, where each of the first and second through opening is oblong in shape, where the first and second through opening are offset from each other, where each of the first and second through openings includes opposing ends, where each of the opposing ends include upper and lower portions, where the first support member engages a lower portion of one opposing end and an upper portion of the other opposing end of the first through opening when the frame has been scissored completely out to provide stops for such scissoring, and where the second support member engages a lower portion of one opposing end and an upper portion of the other opposing end of the second through opening when the frame has been scissored completely out to provide stops for such scissoring.

Another feature of the present invention is the provision in a travel nursery apparatus, of a bassinet apparatus engaged to upper junctions of the frame of the travel nursery apparatus, where the bassinet apparatus depends into the flexible receptacle, where the bassinet apparatus includes a floor that is spaced from the floor of the flexible receptacle.

Another feature of the present invention is the provision in a travel nursery apparatus, of a bassinet apparatus engaged to upper junctions of the frame of the travel nursery apparatus, where the bassinet apparatus depends into the flexible receptacle, where the bassinet apparatus includes a floor that is spaced from the floor of the flexible receptacle, and where the upper junctions include four corner upper junctions.

Another feature of the present invention is the provision in a travel nursery apparatus, of a bassinet apparatus engaged to upper junctions of the frame of the travel nursery apparatus, where the bassinet apparatus depends into the flexible receptacle, where the bassinet apparatus includes a floor that is spaced from the floor of the flexible receptacle, where the upper junctions include four corner upper junctions and two side upper junctions, and where each of the side upper junctions is disposed between two of the corner upper junctions.

An advantage of the present invention is a scissoring frame that folds out to a parallelepiped shape to provide a rectangular shaped sleeping surface for a child.

Another advantage of the present invention is a scissoring frame that provides a platform for a rectangular shaped bassinet.

Another advantage of the present invention is that the scissoring frame automatically stops folding out at a predefined position.

Another advantage of the present invention is that the stop that stops the automatic folding out includes no moving parts.

Another advantage is that the scissoring frame folds up into a compact state.

Another advantage is that the bassinet is reducible to a compact state.

Another advantage is that the scissoring frame is easily and quickly folded out and easily and quickly folded in.

Another advantage is that the bassinet is easily and quickly set up, easily and quickly engaged to the scissoring frame, easily and quickly disengaged from the scissoring frame, and easily and quickly reduced to a compact state.

Another advantage is that the travel nursery apparatus, including the scissoring frame, flexible receptacle, and bassinet are simple and inexpensive to manufacture.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a perspective view of a first embodiment of the travel nursery apparatus of the present invention.

FIG. **2** is a perspective view of a frame for the travel nursery apparatus of FIG. **1**.

FIG. **3** is a top view of the frame of FIG. **2**.

FIG. **4**A is a side elevation view of the frame of FIG. **2**.

FIG. **4**B is an end elevation view of the frame of FIG. **2**.

FIG. **5**A is a side elevation view of the frame of FIG. **4**A in a collapsed state.

FIG. **5**B is a top view of the collapsed frame of FIG. **5**A.

FIG. **5**C is a perspective view of the collapsed frame of FIG. **5**A.

FIG. **6** is a perspective view of soft components of the travel nursery apparatus of FIG. **1**.

FIG. **7**A is a perspective view of a strap of the travel nursery apparatus of FIG. **1** for engaging upper and lower junctions of the frame of FIG. **2**.

FIG. **7**B is a perspective front view of an upper corner junction of the frame of FIG. **2** that is engaged by the strap of FIG. **7**A.

FIG. **7**C is a perspective front view of a lower corner junction of the frame of FIG. **2** that is engaged by the strap of FIG. **7**A.

FIG. **8**A is a perspective view of a strap of the travel nursery apparatus of FIG. **1** for engaging upper and lower junctions of the frame of FIG. **2**.

FIG. **8**B is a perspective rear view of an upper corner junction of the frame of FIG. **2** that is engaged by the strap of FIG. **8**A.

FIG. **8**C is a perspective rear view of a lower corner junction of the frame of FIG. **2** that is engaged by the strap of FIG. **8**A.

FIG. **9**A is a perspective view of a strap of the travel nursery apparatus of FIG. **1** for engaging upper and lower junctions of the frame of FIG. **2**.

FIG. **9**B is a perspective front view of an upper side junction of the frame of FIG. **2** that is engaged by the strap of FIG. **9**A.

FIG. **9**C is a perspective front view of a lower side junction of the frame of FIG. **2** that is engaged by the strap of FIG. **9**A.

FIG. **10**A is a perspective view of a strap of the travel nursery apparatus of FIG. **1** for engaging upper and lower junctions of the frame of FIG. **2**.

FIG. **10**B is a perspective rear view of an upper side junction of the frame of FIG. **2** that is engaged by the strap of FIG. **10**A.

FIG. **10**C is a perspective rear view of a lower side junction of the frame of FIG. **2** that is engaged by the strap of FIG. **10**A.

FIG. **11** is a detail perspective front view of the upper side junction of FIG. **9**B that is engaged by the strap of FIG. **9**A.

FIG. **12**A is a perspective view of an intermediate junction for the frame of FIG. **2** engaging crossing support members of the frame of FIG. **2**.

FIG. **12**B is a bottom view of the intermediate junction of FIG. **12**A.

FIG. **13** is a perspective view of a second embodiment of the travel nursery apparatus of the present invention, where the second embodiment includes an infant bassinet engaged with the travel nursery of FIG. **1**.

FIG. **14** is an exploded view of the infant bassinet of FIG. **13**.

FIG. **15**A is a top view of the floor component of the infant bassinet of FIG. **14**.

FIG. **15**B is a bottom view of the floor component of the infant bassinet of FIG. **14**.

FIG. **15**C is an exploded view of a portion of the floor component of FIG. **14**.

FIG. **16**A is a side, partially section, view of an alternate embodiment of the infant bassinet of FIG. **14**.

FIG. **16**B is a detail section view of pockets of the infant bassinet of FIG. **16**A.

FIG. **17**A is a top view of a floor soft component of the infant bassinet of FIG. **14**.

FIG. **17**B is a bottom view of the floor soft component of FIG. **17**A.

FIG. **17**C is a top exploded view of the floor soft component of FIG. **17**A.

FIG. **18**A is a perspective view of a flap portion of the travel nursery apparatus of FIG. **1**, where the flap portion covers a portion of an upper side junction of the travel nursery apparatus of FIG. **1**.

FIG. **18**B is a perspective view of an inverted hook of the infant bassinet of FIG. **14** about to engage an upper side junction of the travel nursery apparatus of FIG. **1**.

FIG. **18**C is a perspective view of the inverted hook of FIG. **18**B having engaged the upper side junction of FIG. **18**B.

FIG. **19** is a detail view of FIG. **18**B.

FIG. **20**A is a side view of the travel apparatus of Figure, showing a preliminary position of the soft components relative to the frame of FIG. **2**.

FIG. **20**B is a side view of the travel apparatus of FIG. **20**A, showing a final position of the soft components relative to the frame of FIG. **2**.

FIG. **21** is a side view of the travel nursery apparatus of FIG. **1** in a collapsed compact form, shown next to a flexible drawstring elongate bag that may hold the collapsed travel nursery apparatus.

DESCRIPTION

As shown in FIG. **1**, a travel nursery apparatus is indicated by the reference number **10**. Travel nursery apparatus **10** includes a frame **12** and a flexible receptacle **14** engaged to the frame **12**. In the embodiment shown in FIG. **1**, the travel nursery apparatus **10** includes an open top **16**.

As shown in FIG. **2**, the frame **12** includes a set of support members **18**, lower junctions **20**, upper junctions **22**, and intermediate junctions **24**. The individual upper junctions are identified by reference letters A, B, C, D, E, and F. The individual lower junctions are identified by reference letters G, H, I, J, K, and L. Upper junctions A, C, D, and F are corner upper junctions. Lower junctions G, I, J, and L are corner lower junctions. Upper junctions B and E are side or center upper junctions. Lower junctions H and K are side or center lower junctions.

Frame **12** is a scissoring frame **12**. Frame **12** includes a set of six pairs of crossing support members **18**. One pair of crossing support members **18** is identified by those support members **18** that engage upper junctions A and B and lower junctions G and H.

Each of the support members **18** is pivotally engaged at an upper junction **22**, at a lower junction **20**, and at an intermediate junction **24**. Each of the upper junctions **22** pivotally engages two support members **18**. Each of the intermediate junctions **24** pivotally engages two support members **18**. Each of the lower junctions **20** pivotally engages two support members **18**.

Support member **18** is tubular and formed of a metal such as stainless steel or aluminum. Support member **18** includes an elongate straight central portion **26** that is pivotally engaged by and passes through the intermediate junctions **24**. Support member **18** includes a pair of straight end portions **28** that are received by one of the lower or upper junctions **22**. Support member **18** includes a pair of straight oblique portions **30**. Each of the oblique portions **30** is disposed between a straight end portion **28** and the elongate straight central portion **26**. Elongate straight central portion **26** runs parallel to its straight end portions **28**.

As shown in FIG. **3**, a support member **18.1** runs upwardly and obliquely to upper junction E and a support member **18.2** runs upwardly and obliquely to upper junction D. Support members **18.1** and **18.2** have outwardly disposed elongate straight central portions **26**. These outwardly disposed elongate straight central portions **26** of support members **18.1** and **18.2** are disposed in a common plane when the scissoring frame **12** has been folded out to an operating state or when the scissoring frame **12** has been folded in to a compact state or during the process of folding in or out the scissoring frame **12**.

As shown in FIG. **3**, a support member **18.3** runs upwardly and obliquely to upper junction F and a support member **18.4** runs upwardly and obliquely to upper junction E. Support members **18.3** and **18.4** have inwardly disposed elongate straight central portions **26**. These inwardly disposed elongate straight central portions **26** of support members **18.3** and **18.4** are disposed in a common plane when the scissoring frame **12** has been folded out to an operating state or when the scissoring frame **12** has been folded in to a compact state or during the process of folding in or out the scissoring frame **12**.

As shown in FIG. **3**, a support member **18.5** runs upwardly and obliquely to upper junction A and a support member **18.6** runs upwardly and obliquely to upper junction B. Support members **18.5** and **18.6** have outwardly disposed elongate straight central portions **26**. These outwardly disposed elongate straight central portions **26** of support members **18.5** and **18.6** are disposed in a common plane when the scissoring frame **12** has been folded out to an operating state or when the scissoring frame **12** has been folded in to a compact state or during the process of folding in or out the scissoring frame **12**.

As shown in FIG. **3**, a support member **18.7** runs upwardly and obliquely to upper junction B and a support member **18.8** runs upwardly and obliquely to upper junction C. Support members **18.7** and **18.8** have inwardly disposed elongate straight central portions **26**. These inwardly disposed elongate straight central portions **26** of support members **18.7** and **18.8** are disposed in a common plane when the scissoring frame **12** has been folded out to an operating state or when the scissoring frame **12** has been folded in to a compact state or during the process of folding in or out the scissoring frame **12**.

In other words, on the longer sides of the rectangular scissoring frame **12**, outwardly disposed elongate straight central portions **26** lie in a common plane during use, set-up, and take down. Also, on the longer sides of the rectangular scissoring frame **12**, inwardly disposed elongate straight central portions **26** lie in a common plane during use, set-up, and take down.

As shown in FIG. **2**, support member **18.1** runs from lower corner junction L to upper central junction E, support member **18.2** runs from lower central junction K to upper corner junction D, support member **18.3** runs from lower central junction K to upper corner junction F, support member **18.4** runs from lower corner junction J to upper central junction E, support member **18.5** runs from lower central junction H to upper corner junction A, support member **18.6** runs from lower corner junction I to upper central junction B, support member **18.7** runs from lower corner junction G to upper central junction B, and support member **18.8** runs from lower central junction H to upper corner junction C.

Scissoring rectangular frame **12** includes two ends or fifth and sixth pairs of support members **18**. One end includes support member **18.9** having an outwardly disposed elongate straight central portion **26** and support member **18.10** having an inwardly disposed elongate straight central portion **26**. The opposite end includes support member **18.11** having an outwardly disposed elongate straight central portion **26** and support member **18.12** having an inwardly disposed elongate straight central portion **26**.

The support members **18** define a first train running from junction A to support member **18.5** to junction H to support member **18.8** to junction C to support member **18.11** to junction J to support member **18.4** to junction E to support member **18.1** to junction L to support member **18.10** and back to junction A.

The support members **18** define a second train running from junction G to support member **18.7** to junction B to support member **18.6** to junction I to support member **18.12** to junction D to support member **18.2** to junction K to support member **18.3** to junction F to support member **18.9** and back to junction G.

The first train includes at least six support members **18**, at least three the upper junctions (A, C and E), and at least three lower junctions (H, J, and L). The second train includes at least six support members different from that included in the first train, at least three upper junctions (B, D, and F) different from that included in the first train, and at least three lower junctions (G, I, and K) different from that included in the first train. It is noted that the first train weaves into and out of the second train, or that the second train weaves into and out of the first train. The first and second trains are pivotally engaged to each other and, at the same time, are different and distinct trains such that the first and second trains do not share junctions or support members **18**.

Frame **12** can also be described as including a first pair of support members **18.5**, **18.7** that cross each other, a second pair of support members **18.6**, **18.8** that cross each other, where such first and second pairs of support members **18.5**, **18.7** and **18.6**, **18.8** are adjacent to each other, where the first and second pairs of support members **18.5**, **18.7** and **18.6**, **18.8** engage a common upper junction B and a common lower junction H, where the first pair of support members **18.5**, **18.7** cross at a first intermediate junction **24**, and where the second pair of support member **18.6**, **18.8** cross at a second intermediate junction **24**.

Frame **12** can also be described as including a third pair of support members **18.3**, **18.1** that cross each other, a fourth pair of support members **18.4**, **18.2** that cross each other, where such third and fourth pairs of support members **18.3**, **18.1** and **18.4**, **18.2** are adjacent to each other, where the third and fourth pairs of support members **18.3**, **18.1** and **18.4**, **18.2** engage a common upper junction E and a common lower junction K, where the third pair of support members **18.3**, **18.1** cross at a third intermediate junction **24**, and where the fourth pair of support member **18.4**, **18.2** cross at a fourth intermediate junction **24**. The third and fourth pairs of support members **18.3**, **18.1** and **18.4**, **18.2** face or oppose the first and second pairs of support members **18.5**, **18.7** and **18.6**, **18.8**.

Frame **12** includes the following pairs of upper and lower junctions that are disposed vertically relative to each other: 1) junctions A and G, 2) junctions B and H, 3) junctions C and I, 4) junctions D and J, 5) junctions E and K, and 6) junctions F and L.

Upper junctions A, B, C, D, E, and F define an upper rectangle. Lower junctions G, H, I, J, K, and L define a lower rectangle. Frame **12** as a whole defines six faces of a parallelepiped. A first side face is defined by junctions A, B, C, G, H, and I. A second side face is defined by junctions D, E, F, J, K, and L. A first end face is defined by junctions A, F, G, and L. A second end face is defined by junctions C, D, I, and J. A bottom face is defined by junctions G, H, I, J, K, and L. A top face is defined by junctions A, B, C, D, E, and F.

The fifth pair of support members **18.9**, **18.10** that cross each other share upper junctions A and F with the first pair of support members **18.5**, **18.7** and the third pair of support members **18.1**, **18.3**. The fifth pair of support members **18.9**, **18.10** that cross each other share lower junctions G and L with the first pair of support members **18.5**, **18.7** and the third pair of support members **19.1**, **18.3**.

The sixth pair of support members **18.11**, **18.12** that cross each other share upper junctions C, D with the second pair of support members **18.6**, **18.8** and the fourth pair of support members **18.2**, **18.4**. The sixth pair of support members **18.11**, **18.12** that cross each other share lower junctions I, J with the second pair of support members **18.6**, **18.8** and the fourth pair of support members **18.2**, **18.4**.

FIG. **4**A shows the first and second pairs of support members **18.5**, **18.7** and **18.6** and **18.8** that cross each other, the fifth pair of support members **18.9**, **18.10** that cross each other, and the sixth pair of support members **18.11**, **18.12** that cross each other. FIG. **4**A further shows an over center lock apparatus **32**. Over center lock apparatus **32** includes a first straight member **34**, a second straight member **36**, and a push/pull lock **38**. Member **34** is pivotally engaged to each of support member **18.5** and to lock **38**. Member **36** is pivotally engaged to each of support member **18.8** and lock **38**. Members **34**, **36** have inner ends that abut each other. When lock **38** is pushed down, frame **12** scissors out, and the proximal ends of members **34**, **36** come into contact under pressure. Then, when lock **38** is pushed further downwardly, the proximal ends of members **34**, **36** reach an over center position where the axis of members **34**, **36** form a slight upright V. Such locks the frame **12** from scissoring in or moving toward the compact state. When the user decides to take down the frame **12**, the user pushes or pulls upwardly on the lock **38**, an action that takes the members **34**, **36** through the over center point and back to a state where the axis of the members **34**, **36** form an inverted

V. As to over center lock apparatus **32**, the Flannery et al. U.S. Pat. No. 10,448,752 B1 issued Oct. 22, 2019 and entitled Playyard is hereby incorporated by reference in its entirety.

FIG. **4**B shows the fifth pair of support members **18.9**, **18.10** that cross each other. FIG. **4**B further shows that each of the longer sides of the parallelepiped includes the over center lock apparatus **32** such that a first over center lock apparatus **32** is engaged between support members **18.5** and **18.8** and that a second over center lock apparatus **32** is engaged between support members **18.2** and **18.3**.

FIG. **5**A shows the inverted V state of the over center lock apparatus **32**. FIG. **5**A further shows that the upper junctions A and C confront and are adjacent to upper junction B when the frame **12** is in the compact state. FIG. **5**A further shows that the lower junctions G and I confront and are adjacent to lower junction H when the frame **12** is in the compact state.

FIG. **5**B shows that each of the over center lock apparatus **32** is disposed on one of the long sides of the rectangular frame **10**. FIG. **5**B further shows that each of the upper junctions confronts and is adjacent to two other upper junctions when the frame **12** is in the compact state.

FIG. **5**B further shows that the upper junctions A, B, C, D, E and F define a rectangle when the frame **12** is in the folded in and compact state.

FIG. **5**C shows that each of the upper junctions confront and are adjacent to two other upper junctions when the frame **12** is in the compact state. FIG. **5**C further shows that each of the lower junctions confront and are adjacent to two other lower junctions when the frame **12** is in the compact state.

FIG. **5**C further shows that the distal ends of members **34**, **36** are not directly affixed to their respective support members **18.5**, **18.8**. Rather, a relatively short spacer **40** is disposed between the distal end of member **34** and support member **18.5** and a relatively long spacer **42** is disposed between the distal end of member **36** and support member **18.8**. Support member **18.8** includes an inwardly disposed elongate straight central portion **26** and thus here the spacer **42** is relatively long. Support member **18.5** includes an outwardly disposed elongate straight central portion **26** and thus here the spacer **40** is relatively short.

FIG. **5**C further shows that the frame **12** defines a parallelepiped when the frame **12** is in the folded in and compact state.

FIG. **5**C further shows that the upper junctions A, B, C, D, E and F define a rectangle when the frame **12** is in the folded in and compact state and that the lower junctions G, H, I, J, K, and L define a rectangle when the frame **12** is in the folded in and compact state.

FIG. **6** shows the flexible receptacle **14**. Flexible receptacle **14** includes first and second sidewalls **44**, **46**, first and second end walls **48**, **50**, and a floor **52**. With open top **16**, flexible receptacle **14** defines a parallelepiped.

Each of first and second sidewalls **44**, **46** includes a mesh or see through portion **54**. First sidewall **44** includes an inner wall portion **56** and an outer wall portion **58** separated by a fold line **60**. Second sidewall **46** includes an inner wall portion **62** and an outer wall portion **64** separated by a fold line **66**.

First end wall **48** includes an inner wall portion **68** and an outer wall portion **70** separated by a fold line **72**. Second end wall **50** includes an inner wall portion **74** and an outer wall portion **76** separated by a fold line **78**.

FIG. **1** shows the outer wall portions **58**, **64**, **70**, and **76** folded over the upper junctions A, B, C, D, E, and F. When the frame **12** is in the folded out or operating state, this folded over state of the outer wall portions **58**, **64**, **70**, and **76** engages the flexible receptacle **14** to the frame **12** without need for any further engagement. If desired, a tighter engagement may be provided where the outer wall portions **58**, **64**, **70**, and **76** are folded over such upper junctions A, B, C, D, E, and F prior to the frame **12** being fully folded out. The process of fully folding out frame **12**, after the outer wall portions **58**, **64**, **70**, **76** have been folded over the upper junctions A, B, C, D, E, and F, tightens and slightly expands the outer wall portions **58**, **64**, **70**, and **76**. Preferably flexible receptacle **14** is made of a nonstretch flexible material or nonstretch fabric such that such tightening takes place as the frame **12** is fully folded out.

Flexible receptacle **14** includes a set of six openings for permitting straps **82** for passing therethrough. Straps **82** engage paired vertically disposed upper and lower junctions A and G, B and H, C and I, D and J, E and K, and F and L. Each of the openings **80** intersects one or more fold lines **60**, **66**, **70**, **76**. Adjacent to each of the openings **80** is a flap **84** for covering its adjacent opening **80**. Flaps **84** are engaged to one or more of the inner walls **56**, **62**, **68**, **74** and are of sufficient width and length to completely cover opening **80**. On one of its ends, flap **84** includes a first fabric quick connect piece **86**, such as a Velcro® piece, that engages a second fabric quick connect piece **88**, such as a Velcro® piece to tie down or engage the flap **84** over opening There are six second fabric quick connect pieces **88**, each engaged directly below opening **80** on the outer faces of outer walls **58**, **64**, **70**, **76**.

FIG. **7**A is a detail perspective view of strap **82**. Strap **82** includes a female buckle end **90** and male buckle end **92**. Buckle ends **90**, **92** are quick connectors. Curved barbed prongs **94** can be quickly inserted into female buckle end **90** with or without pinching the prongs **94** together. After connection with female buckle end **90**, barbed prongs **94** can be resiliently pinched together such that the prongs **94** can be slipped out of the female buckle end **90**.

Female buckle end **90** is pivotable relative to strap end **96** to which the female buckle end **90** is engaged. Strap end **96** includes a flexible strap loop that engages a slot in the female buckle end **90**.

Male buckle end **92** is pivotable relative to strap end **98** to which the male buckle end **92** is engaged. Strap end **98** includes a flexible strap loop that engages a slot in the male buckle end **92**.

Between the flexible strap ends **96** and **98**, strap **82** includes a strap body **99**. Strap body **99** may be made of a fabric or polymer such as nylon. Strap body is flexible and flat.

Strap or strap apparatus **82** engages upper corner junction A and lower corner junction G that are shown in FIGS. **7**B and **7**C. Joints A and G are identical. To use upper corner junction A as lower corner junction G, junction A is rotated **180** degrees about a horizontal central axis **100**.

Each of junctions A and G includes a T-shaped slot **102**. Slot **102** includes a vertical slot portion **104** that communicates with a horizontal slot portion **106**. Strap body **99** can be inserted into vertical slot portion **104** and then slid into horizontal slot portion **106**. The width of slot portions **104**, **106** are less than the thickness of either of the female or male buckle ends **90**, **92** such that the ends **90**, **92** cannot slide through any portion of T-shaped slot **102**. After portions of the strap body **99** have been engaged in horizontal slot portion **106**, female and male buckle ends **90**, **92** are engaged. Strap **82** preferably has a fixed length such that the desired amount of tension between junctions A and G is attained. However, if desired, a strap **82** that is adjustable in

length may be used. Junction A is identical to corner junctions C, D, and F. Junction G is identical to corner junctions I, J, and L.

Each of corner junctions A, C, D, F, G, I, J, and L have the structure shown in FIGS. **7**B, **7**C, **8**B, and **8**C. Each of these corner junctions thus can be given the reference numeral **108**. Corner junction **108** is formed of a hard polymer or plastic. Corner junction **108** includes a floor (or ceiling) **110**. Corner junction **108** includes a pair of pockets **112** for receiving support members **18**. Pockets **112** are disposed at right angles relative to each other. For example, pockets **112** of junction G receive support members **18.9** and **18.7**. Pivots pins **114** are anchored by sidewalls **116**. Each of the pivot pins **114** pivotally engages an end of one support member **18**. The end portion of such support member **18** swings on pin **114** back and forth in its respective pocket **112** when the frame **12** is folded in to the compact state and folded out to the expanded operating state. Pockets **112** are separated from each other by an intermediate junction section **118** that extends between the sidewalls **116** and that extends between the pockets **112**. T-slot **102** is formed in this intermediate junction section **118**. Further formed in this intermediate junction section **118** is a pair of opposed L-shaped pieces **120** that form a slot **122** therebetween. Strap body **99** is inserted sideways into this slot **122** and then lays flat against surface **124** of the intermediate junction section **118**. L-shaped pieces **120** have outer plate sections **126** that are spaced from surface **124** so as to form a slot **128** for engaging strap body **99**. Slot **128** is shown in FIG. **11**.

FIG. **8**A shows the strap apparatus **82** of FIG. **7**A. FIG. **8**B shows a rear view of corner junction **108**. FIG. **8**C shows a rear view of corner junction **108**. A rear portion **130** of the intermediate junction section **118** does not include the L-shaped pieces **120**. Rear portion **130** is flat and confronts the face of the strap body **99**.

FIG. **9**A shows the strap apparatus **82** of FIG. **7**A. FIG. **9**B shows a front view of upper center junction B. FIG. **9**C shows a front view of lower center junction H. Upper center junction B is identical to lower center junction H. To use upper center junction B as lower center junction H, upper center junction B is rotated for **180** degrees around horizontal axis **132**. Upper center junction B is identical to upper center junction E and lower center junction K. All of such center junctions are designated by the reference number **134**.

Center junction **134** is identical to corner junction **108** except that, with center junction **134**, pockets **112** define a common plane. With corner junction **108**, pockets **112** are disposed at a right angle relative to each other.

Center junction **134** includes T-shaped slot **102** having vertical slot portion **104** and horizontal slot portion **106**. Center junction **134** includes floor **110** (or ceiling **110**). Center junction **134** includes pockets **112**, pivot pins **114**, sidewalls **116**, intermediate section **118**, and L-shaped pieces **120** forming slot **122**. Center junction **134** includes surface **124**, outer plate sections **126**, and slot **128**. Center junction includes rear portion **130** to the intermediate junction section **118**.

FIG. **10**A shows the strap apparatus **82** of FIG. **7**A. FIG. **10**B shows a rear view of upper center junction B. FIG. **10**C shows a rear view of lower center junction H.

Center junction **134** is formed of a hard polymer or plastic. One strap or strap apparatus **82** engages upper center junction B and lower center junction H and another strap **82** engages lower center junction E with lower center junction K, just like other straps **82** are paired with corner junctions A, G and C, I and D, J, and F, L.

Each of center junctions **134** and corner junctions **108** engage strap apparatus **82** in the same way. Strap body **99** is turned on edge to engage slot portion **104** and then flexed or bent to a ninety degree position in which it engages slot portion **106**. Strap body **99** is turned on edge to engage slot **122** and then flexed or bent to a ninety degrees in which is engages slot **128**.

In the position where strap body **99** engages slot portions **104** and slot **128**, strap body **99** is disposed within the interior of corner junction **108** or the interior of center junction **134**. Further, flat portion **130** of the intermediate junction section **130** is recessed relative to sidewalls **116** so as to further space the strap body **99** from an exterior of the junction **108** or **134**.

As shown in FIG. **11**, each of the strap ends **96**, **98** have respective strap loops **136**, **138**. Loops **136**, **138** permit the female and male buckle ends **90**, **92** to be pivotable relative to the strap apparatus **82**. FIG. **11** further shows strap body on surface **124**, in slot **128**, and in slot portion **106**.

FIG. **12**A shows a perspective view of the intermediate junction **24**. FIG. **12**B shows a top view of the intermediate junction **24**. Intermediate junction **24** is a square plastic piece **139** with rounded corners. A pivot pin **140** is anchored by the plastic piece **139** and engages each of the support members **18** that cross each other at the intermediate junction **24**. By way of example, support members **18.5** and **18.7** are illustrated in FIG. **12**A and **12**B. Surrounding the head of the pivot pin **140** is a boss **142**.

Pivot pin **140** extends through the piece **139** from one side of the piece **139** to the other side of the piece **139**. Pivot pin **140** may be anchored via bearings in an integral center wall **144** of the piece **139**. Piece **139** includes a pair of oblong openings **146** offset from each other. "Oblong" means deviating from a square, circular, or spherical form by elongation in one dimension. Openings **146** are offset relative to each other and are also offset relative to the axis of the pivot pin **140**. In other words, one oblong opening **146** includes an end adjacent to one side **148** of the piece **139** while the other oblong opening **146** includes an end adjacent to another side **150** of piece **139**. In still other words, a first end of a first oblong opening **146** is closer to the axis of the pivot pin **140** than a second end of such first oblong opening **146**. Sides **148**, **150** are opposite of each other. Each of the oblong openings **146** are defined by vertical sidewalls **152**. The vertical sidewalls **152** are endless. Vertical sidewalls **152** are parallel to sides **148**, **150**. Piece **139** includes vertically running through openings **154** formed therein. Openings **154** are formed adjacent to the end of the oblong opening **146** that is disposed relatively close to the axis of the pivot pin **140**. Openings **154** are not formed adjacent to the end of the oblong opening **146** that is spaced relatively far away from the axis of the pivot pin **140** since such end is relatively close to either side **148** or side **150**.

Intermediate junction **24** works as a stop. That is, when frame **12** is completely folded out, a bottom rounded edge section of an end portion of vertical sidewall **152** of first oblong opening **146** confronts the rounded sidewall of the support member **18** at the same time as a top rounded edge section of the opposite portion of vertical sidewall **152** of such first oblong opening **146** confronts the rounded sidewall of the support member **18**. The second oblong opening **146** works in a same but opposite manner such that there are two bottom rounded edge sections and two top rounded edge sections of pieces **139** working as a set of four stops at the same time. When frame **12** is in the folded in and compact position, as shown in FIGS. **5**A, **5**B, and **5**C, the rounded sidewalls of the support members **18** are disengaged from

and spaced from such two bottom rounded edge sections and such two top rounded edge sections of pieces **139**, though support members **18** are still disposed obliquely relative to planes respectively defined by the parallel upper and lower surfaces of piece **139**.

FIG. **13** shows a second embodiment of the travel nursery apparatus **10**, where the second embodiment includes an infant bassinet **156** engaged with the travel nursery apparatus **10** of FIG. **1**. After the outer walls **58**, **64**, **70**, **76** are folded over the upper junctions A, B, C, D, E, F, the infant bassinet **156** may be engaged to the upper junctions A, B, C, D, E, and F.

FIG. **14** is an exploded view of the infant bassinet **156**. Infant bassinet **156** includes a receptacle **158** and a pair of pads **160**, **162** for the bottom of the receptacle.

Receptacle **158** is formed of soft and hard components. Soft components include sidewalls **164** and end walls **166**. A floor **168** may be a soft component and include a telescoping tube **170** running longitudinal between the end walls **166**.

Floor **168** may be formed of a flexible material such as a fabric or polymer or nylon. Sidewalls **164** and end walls **166** may be formed of a mesh flexible material such as a fabric or polymer or nylon mesh.

The upper edges of sidewalls **164** and end walls **166** include relatively wide strips **172** of a flexible material such as a fabric or polymer or nylon. A set of three relatively wide laterally extending strips **174** of a flexible material such as a fabric or polymer or nylon extend in a U-shaped manner to extend from strip **172** downwardly on sidewall **164**, laterally across the under face of floor **168**, upwardly on sidewall **164**, and terminate on opposite strip **172**. Strips **174** may be engaged such as by stitching or by adhesive to sidewalls **164** and floor **168**. A single relatively wide longitudinally extending strip **176** of a flexible material such as a fabric or polymer or nylon extends in a U-shaped manner to extend from strip **172** downwardly on end wall **166**, longitudinally across the under face of floor **168**, upwardly on the other end wall **166**, and terminate on opposite strip **172**. Strip **176** may be engaged such as by stitching or by adhesive to sidewalls **164** and floor **168**.

Hard components of the infant bassinet **156** include the telescoping tube **170** and junction clips **178**. There are six junction clips **178**, one each for engaging each of the upper junctions A, B, C, D, E, and F. Junction clips **178** are engaged to the upper peripheral edge of the infant bassinet **156**, including strip **172**. Four junction clips **178** are engaged to the upper corners of the infant bassinet **156**.

Two junction clips **178** are centrally disposed on the sidewalls **164** between two adjacent bassinet corners.

A further soft component of the infant bassinet **156** is a dividing interior vertical wall **180** formed of a mesh flexible material such as a fabric, polymer, or nylon. Wall **180** includes an upper strip **182** formed of a flexible material such as a fabric, polymer, or nylon. The side and bottom edges of wall **180** may be engaged, such as by stitching, to the middle or central strip **174**.

FIG. **15**A shows a top view of the floor **168**. Strips **174** are shown in phantom since such strips **174** are engaged to the under face of the floor **168**. Further shown in phantom are oblique strips **184** formed of a flexible material such as a fabric, polymer, or nylon. One oblique strip **184** runs from corner to corner in a diagonal or catty corner fashion. A second oblique strip **184** runs from corner to corner in a diagonal or catty corner fashion. The diagonal strips **184** cross at the under face of the center of the floor **168**. The diagonal strips **184** continue upwardly from the floor **168**, up the junctions of side and end walls **164**, **166**, to terminate at peripheral strip **172**.

The upper face of floor **168** includes a set of four flexible strips **186** of quick connect material such as Velcro®. The quick connect material may be include macroscopic hooks and/or loops. Strips **186** are spaced from the end (lateral) edges **188** and side (longitudinal) edges **190** of floor **168**. Strips **186** are adjacent to and spaced from side edges **190**. The inner ends of strips **186** are spaced from interior wall **180** and the middle strip **174**.

FIG. **15**A further shows that telescoping tube **170** has at least two telescoping portions **192**, **194**. Tube portion **192** is of a larger diameter than tube portion **194**. Tube portion **194** telescopes into tube portion **192** when, for example, infant bassinet **156** is taken off travel nursery **10** and is to be stored, in which case the soft bassinet **156** will collapse to have a shorter longitudinal length. The distal ends of tube portions **192**, **194** are fixed to a connection apparatus **196** engaged to floor **168**. Tube **170** passes over and under floor **168** through openings **198**. A central portion of tube **170** is disposed adjacent to the under face of floor **168**. Distal portions of tube **170** are disposed adjacent to an upper face of floor **168**.

FIG. **15**B is a bottom view of the floor **168** and shows relatively small diameter tube **194** having been inserted into large diameter tube **192**. FIG. **15**B further shows the diagonal strips **184**, the lateral strips **174**, the openings **198**, and the connection apparatus **196**.

FIG. **15**C is an exploded view of the connection apparatus **196** that connects the ends of tubing **170** to the floor **168** of the infant bassinet **156**. The connection apparatus **196** includes rivets **198**, a plastic sheet **200**, a fabric piece **202**, and a rivet cap **204**. Plastic sheet **200** is preferably a high-density polyethylene (HDPE). Fabric piece **202** is preferably a waterproof, non-porous, self-extinguishing fabric, where water beads up on such fabric and then rolls off. Fabric piece **202** may be cut from a Cordura® fabric. Fabric piece **202** may be nylon, but may be blended with cotton or other natural fibers.

Plastic sheet **200** lies over the tube end **192** or **194** to transition from a cylindrical surface to a flat surface provided by the hard plastic piece **200**. Plastic sheet **200** is preferably thin, such as about 3 mm in thickness. Fabric piece **202** is placed over plastic sheet **200** and stitched to floor **168**, thereby holding the plastic sheet **200** in place. Further holding the plastic sheet **200** in place is rivet cap **204** which is placed on the fabric sheet **202** and engages the rivet **198** that passes through opening **206**. Rivet cap **204** is engaged to tube end **192** or **194** by one of the rivets **198**. Rivet cap **204** pinches the fabric piece **202** between the rivet cap **204** and the plastic piece **200**. Stitching **208** immediately inside of the periphery of the fabric piece **202** holds the plastic piece **200** therein. Thus, with the ends **192**, **194** of the tubing **170** engaged to the plastic piece **200** that is engaged within the fabric piece **202** that is engaged to the floor **168**, the ends of the floor **168** and thus the ends **166** of the infant bassinet **156** can be drawn in when the tubing **170** is retracted so as to minimize the size of the infant bassinet **156** for transport from the factory to a distribution center, for shelf space at the distribution center or in the retail store, for storage at home, or for carrying in the car.

As shown in FIG. **15**B, the U-shaped straps **174** closest to the ends of the infant bassinet **156** are engaged to the floor **168** under the distal ends of tubes **192**, **194**, while the center U-shaped strap **174** is engaged to floor **168** above tubing **192** and adjacent to where tubing **194** extends into tubing **192**. In contrast, in FIG. **16**A, an alternate embodiment of the infant

bassinet has all of the U-shaped straps **174** disposed above all portions of tubes **194**, **192** and a pair of pockets **210** depending from a platform **218** that depends from floor **168** engage the distal ends of the tubes **194**, **192**. This embodiment, referred to as infant bassinet **212**, has pocket openings **214** on the inner portions of the pockets **210** and closed pocket ends **216**. Pockets **210** engage the distal ends of tubing **170**.

Pockets **210** are engaged to a flexible platform **218** that is in turn engaged or stitched to floor **168**, where floor **168** does not include the connection apparatus **196**. Flexible platform is a fabric or polymer or nylon platform.

Like infant bassinet **156**, infant bassinet **212** includes a) receptacle **158**, b) pads **160**, **162**, c) sidewalls **164**, d) end walls **166**, e) floor **168**, f) telescoping tube **170**, g) the relatively wide strips **172**, h) the relatively wide laterally extending strips **174** that extend in a U-shaped manner to extend from strip **172** downwardly on sidewall **164**, laterally across the under face of floor **168** and the upper face of platform **218**, upwardly on sidewall **164**, and terminate on opposite strip **172**, i) the single relatively wide longitudinally extending strip **176** that extends in a U-shaped manner from strip **172** downwardly on end wall **166**, longitudinally across the under face of floor **168** and upper face of platform **218**, upwardly on the other end wall **166**, and terminates on opposite strip **172**, j) junctions clips **178**, k) dividing interior vertical wall **180** with upper strip **182**, l) oblique strips **184**, m) the set of four flexible strips **186** of quick connect material such as Velcro®, and m) telescoping tube **170** that has at least two telescoping portions **192**, **194** that are removably engaged in the pockets **210**.

FIGS. **17**A, **17**B, and **17**C show a folding sleeping mat **220** for being disposed on the top of the floor **168** of either of the infant bassinets **156**, **212**. Mat **220** includes four layers: 1) a top layer **222** of a light minky plush 100% polyester fabric, 2) a layer **224** immediately under the top layer **222** where layer **224** is a corrugated high density polyethylene board that is about six millimeters thick, 3) a layer **226** immediately under layer **224** where layer **226** is a high density polyurethane foam that is 25 millimeters thick, and 4) layer **228** immediately under layer **226** where layer **228** is a waterproof and wipeable vinyl material. Layer **228** is the bottom layer. Mat **220** includes two half portions **230** and **232**. Each of the half portions includes layers **222**, **224**, **226**, and **228**. All layers extend substantially to the perimeters of half portions **230**, **232**.

As shown in FIG. **17**B, the underface of the bottom layer **228** includes strips **234** of quick connect material such as Velcro® for connection to quick connectors **186** on the upper surface of floor **168**. Strips **234** are adjacent to and spaced from longitudinal edges of the mat **220**. Velcro® is a material with macroscopic hooks and loops.

As shown in FIG. **17**C the two half portions **230**, **232** includes inner edges having a quick connect mechanism **236** such as a zipper mechanism. As further shown in FIG. **17**C, an elongate flap **238** is permanently engaged to half portion **232** and removably engaged to half portion **230** with quick connects **240** that are preferably Velcro® quick connects. Velcro® is a material with macroscopic hooks and loops. By engaging quick connects **240** on the underside of flap **238** with the quick connects **240** on the upper face of half portion **230**, the elongate quick connect mechanism **236** is hidden.

It should be noted that a portion of the periphery of each of the half portions **230**, **232** may be opened and closed with a quick connect such as a zipper mechanism. The periphery portion that may be opened is any of the three straight outer portions **242**, **244**, **246**. Such portion may be opened and closed by a quick connect mechanism such as a zipper mechanism. By opening one of such portions **242**, **244**, **246**, layers **224**, **226** may be removed so that layers **222**, **228** can be put in a washing machine.

FIGS. **18**A, **18**B, **18**C, and **19** show the flap **84**, the opening **80**, and junction clip **178**. FIG. **18**A shows the flap **84** in a closed state. The closed state is employed when bassinet **156** or **212** is not used.

FIG. **18**B shows the flap **84** in an open state to expose the L-shaped pieces **120** of the upper junctions A, B, C, D, E, and F. FIG. **18**B shows that the junction clip **178** includes a base **248** having an oblique finger hold **250**, an inverted U-shaped connector or clip **252** extending from the back side of the base **248**, and a slot **254** for connection of a strap **256**. Strap **256** is an extension of strap **174** in the case of a center junction clip **178**. In the case of the corner junction clips **178**, strap **256** is an extension of the diagonal strip **184**. U-shaped connector **252** engages or captures the L-shaped pieces **120** of the upper junctions A, B, C, D, E, and F. The weight of the bassinet **156** or **212** draws the U-shaped connector **252** upwardly and into engagement with the L-shaped pieces **120**. To disengage the U-shaped connector **252**, the bassinet **156** or **212** is lifted upwardly to provide slack to strap extension **256** such that the junction clip **178** may be slid or drawn downwardly and out of engagement with the L-shaped pieces **120**. FIG. **18**C shows the flap **80** in the open state and shows the U-shaped connector **252** engaged with the L-shaped pieces **120**. FIG. **19** is a detail of FIG. **18**B.

FIG. **20**A is a side elevation view of the travel nursery apparatus **10** of FIG. **1** with the outer walls **58**, **62**, **70**, and **74** raised. The outer walls **58**, **62**, **70**, and **74** may be lowered prior to or after the frame **12** is folded out. FIG. **20**B is a side elevation of the travel nursery apparatus **10** of FIG. **1** after the outer walls **58**, **62**, **70**, and **74** have been folded down over the upper junctions A, B, C, D, E, and F and after the flaps **84** have been engaged to connector pieces **88**.

FIG. **21** is a side view of the travel nursery apparatus **10** of FIG. **1** in a collapsed compact form, shown next to a flexible drawstring elongate bag **258** that may hold the collapsed travel nursery apparatus **10**.

Strap apparatus **82** may be used, but need not be used, where over center lock apparatus **32** is used.

"Parallelepiped" means one or more of the following:

1) a three-dimensional figure formed by six parallelograms, and 2) a structure with six faces, all parallelograms, where the structure is solid or otherwise.

"Rectangle" means a parallelogram all of whose angles are right angles, especially, but not necessarily, one with adjacent sides of unequal length.

"Parallelogram" means a quadrilateral with opposite sides parallel and equal.

"Quadrilateral" means a polygon of four sides.

The set of upper junctions A, B, C, D, E, and F defines each of a rectangle, parallelogram, and quadrilateral. The set of lower junctions G, H, I, J, K, and L defines each of a rectangle, parallelogram, and quadrilateral. The frame **12** defines four sides of a parallelepiped. The frame **12** plus the open top and open bottom of the frame **12** defines all six sides of a parallelepiped. The flexible receptacle **14** defines five sides of a parallelepiped. The flexible receptacle **14** plus the open top of the flexible receptacle defines all six sides of a parallelepiped.

Thus since the invention disclosed herein may be embodied in other specific forms without departing from the spirit or general characteristics thereof, some of which forms have been indicated, the embodiments described herein are to be

considered in all respects illustrative and not restrictive. The scope of the invention is to be indicated by the appended claims, rather than by the foregoing description, and all changes which come within the meaning and range of equivalents of the claims are intended to be embraced therein.

What is claimed is:

1. A travel nursery apparatus comprising:

a) a frame;

b) the frame including a set of support members;

c) the frame including upper junctions, lower junctions, and intermediate junctions, the upper junctions and lower junctions being vertically disposed relative to each other, each of the upper, lower, and intermediate junctions pivotally engaging at least two of said support members;

d) the frame including a first pair of support members that cross each other and a second pair of support members that cross each other, the first and second pairs of support members being adjacent to each other, the first and second pairs of support members engaging a common upper junction, the first and second pairs of support members engaging a common lower junction, the first pair of support members crossing at a first intermediate junction, the second pair of support members crossing at a second intermediate junction;

e) a flexible receptacle engaged to the frame and having an outer sidewall portion, an inner sidewall portion, and a floor, the inner sidewall portion disposed inwardly of the frame, the outer sidewall portion disposed outwardly of the frame, the outer sidewall portion and inner sidewall portion of the flexible receptacle being integral and one-piece with each other;

f) the upper junctions defining an upper rectangle and the lower junctions defining a lower rectangle;

g) wherein the outer sidewall portion confronts the inner sidewall portion, wherein the outer sidewall portion is disposed over each of the upper junctions, wherein the upper junctions are disposed between the outer sidewall portion and the inner sidewall portion; and

h) wherein each of the support members includes a straight portion, wherein the first pair of support members includes an upwardly extending support member that extends from a first lower junction to a first upper junction, wherein the second pair of support members includes an upwardly extending support member that extends from a second lower junction to a second upper junction, wherein said straight portions of the upwardly extending support members are disposed in a common plane.

2. The travel nursery apparatus of claim **1**, wherein the inner sidewall portion and the floor of the flexible receptacle define five faces of a parallelepiped.

3. The travel nursery apparatus of claim **1**, wherein the support members define a first train and a second train, the first train including at least six support members, at least three upper junctions, and at least three lower junctions, the second train including at least six support members different from that included in the first train, at least three upper junctions different from that included in the first train, and at least three lower junctions different from that included in the first train, the first train weaving into and out of the second train.

4. The travel nursery apparatus of claim **1**, wherein the first pair of support members includes a downwardly extending support member that extends from a third upper junction to said second lower junction, wherein the second pair of support members includes a downwardly extending support member that extends from said first upper junction to third lower junction, wherein the said straight portions of said downwardly extending support members are disposed in a common plane.

5. The travel nursery apparatus of claim **1**, wherein the frame further includes a third pair of support members that cross each other and a fourth pair of support members that cross each other, the third and fourth pair of support members being adjacent to each other, the third and fourth pairs of support members engaging a common upper junction, the third and fourth pairs of support members engaging a common lower junction, the third pair of support members crossing at a third intermediate junction, the fourth pair of support members crossing at a fourth intermediate junction, the third and fourth pairs of support members facing the first and second pairs of support members.

6. The travel nursery apparatus of claim **5**, wherein the frame further includes a fifth pair of support members that cross each other, the fifth pair of support members sharing upper junctions with the first and third pairs of support members, the fifth pair of support members sharing lower junctions with the first and third pairs of support members.

7. The travel nursery apparatus of claim **6**, wherein the frame further includes a sixth pair of support members that cross each other, the sixth pair of support members sharing upper junctions with the second and fourth pairs of support members, the sixth pair of support members sharing lower junctions with the second and fourth pairs of support members.

8. The travel nursery apparatus of claim **1**, wherein at least one of said upper junctions is a corner upper junction, the corner upper junction having first and second support member receptacles with respective first and second axis, the first and second axis disposed in first and second planes that are disposed at a right angle to each other.

9. The travel nursery apparatus of claim **1**, wherein at least one of said lower junctions is a corner lower junction, the corner lower junction having first and second support member receptacles with respective first and second axis, the first and second axis disposed in first and second planes that are disposed at a right angle to each other.

10. The travel nursery apparatus of claim **1**, wherein the intermediate junction comprises a pin engaging crossing support members.

11. The travel nursery apparatus of claim **1**, wherein the intermediate junction comprises a piece having first and second through openings, a first support member extending through the first through opening and being pivotally engaged to the piece, a second support member extending through the second through opening and being pivotally engaged to the piece, each of the first and second through opening being oblong in shape, the first and second through opening being offset from each other, each of the first and second through openings having opposing ends, each of the opposing ends having upper and lower portions, the first support member engaging a lower portion of one opposing end and an upper portion of the other opposing end of the first through opening when the frame has been scissored completely out to provide stops for such scissoring, the second support member engaging a lower portion of one opposing end and an upper portion of the other opposing end of the second through opening when the frame has been scissored completely out to provide stops for such scissoring.

12. The travel nursery apparatus of claim **1**, and further comprising a bassinet apparatus engaged to upper junctions

of the frame of the travel nursery apparatus, the bassinet apparatus depending into the flexible receptacle, the bassinet apparatus having a floor that is spaced from the floor of the flexible receptacle.

13. The travel nursery apparatus of claim **1**, and further comprising a bassinet apparatus engaged to upper junctions of the frame of the travel nursery apparatus, the bassinet apparatus depending into the flexible receptacle, the bassinet apparatus having a floor that is spaced from the floor of the flexible receptacle, wherein said upper junctions include four corner upper junctions.

14. The travel nursery apparatus of claim **1**, and further comprising a bassinet apparatus engaged to upper junctions of the frame of the travel nursery apparatus, the bassinet apparatus depending into the flexible receptacle, the bassinet apparatus having a floor that is spaced from the floor of the flexible receptacle, wherein said upper junctions include four corner upper junctions and two side upper junctions, and wherein each of the side upper junctions is disposed between two of the corner upper junctions.

15. A travel nursery apparatus comprising:

a) a frame;

b) the frame including a set of support members;

c) the frame including upper junctions, lower junctions, and intermediate junctions, the upper junctions and lower junctions being vertically disposed relative to each other, each of the upper, lower, and intermediate junctions pivotally engaging at least two of said support members;

d) the frame including a first pair of support members that cross each other and a second pair of support members that cross each other, the first and second pairs of support members being adjacent to each other, the first and second pairs of support members engaging a common upper junction, the first and second pairs of support members engaging a common lower junction, the first pair of support members crossing at a first intermediate junction, the second pair of support members crossing at a second intermediate junction;

e) a flexible receptacle engaged to the frame and having an outer sidewall portion, an inner sidewall portion, and a floor, the inner sidewall portion disposed inwardly of the frame, the outer sidewall portion disposed outwardly of the frame, the outer sidewall portion and inner sidewall portion of the flexible receptacle being integral and one-piece with each other;

f) the upper junctions defining an upper rectangle and the lower junctions defining a lower rectangle; and

g) a bassinet apparatus engaged to the frame of the travel nursery apparatus by a connection, the bassinet apparatus depending into the flexible receptacle, the bassinet apparatus having a floor that is spaced from the floor of the flexible receptacle, the connection including:

i) a strap extending from the bassinet apparatus, the strap including a distal end, the distal end including a U-shaped member having a U-portion; and

ii) a piece on the frame, the U-portion of the U-shaped member engaging said piece when the U-portion of the U-shaped member is in an inverted state such that an open end of the U-portion is at a higher altitude than a closed end of the U-portion such that a weight of the bassinet apparatus draws the bassinet apparatus toward the floor of the flexible receptacle, thereby drawing the distal end of the strap in a direction away from said piece, and thereby drawing the piece into the closed end of said U-portion.

* * * * *